EXHIBIT

J

FOLDER

3

PT. 4

Coastal Bioanalysts
[illegible] Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only)

0	m	E	G	0	9	0	3	-	B
A	A	A	A	Y	Y	N	N		A
Project ID									Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz 453-4211	
NPDES PERMIT NO: VA0003867		OUTFALL # OR LOCATION: 001	
SAMPLE CHLORINATED? No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	

TESTS REQUESTED:	SPECIES OR EPA METH #: m.bahia	ACUTE ☐	CHRONIC ☑
	SPECIES OR EPA METH #: C.variegatus	ACUTE ☐	CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME: 9/16/09 07:15		SAMPLE END DATE & TIME: 9/17/09 07:15		AUTOSAMPLER TEMP. (°C): 4:0	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES: 96	VOL (ml) SUBSAMPLES: 200		TIME INCREMENT: 15 min	
	SET VOLUME SUBSAMPLE:	SET VOLUME FLOW: 175,500 gal/day		TOTAL VOLUME:	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (eg. 02/23/00 1635)	INITIALS
33.4	7.06	4.0		9/17/09 08:00	TWS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Ted Schultz Technical Supervisor Ted Schultz 9/17/09
(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
[signature]	9/17/09	10:45	[signature]
	9/17/09		

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 2 ARRIVED ON ICE? YES✓ NO____

NOTE: *It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.*

Coastal Bioanalysis
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only)

D	M	E	G	D	9	0	3	-	C
A	A	A	A	Y	Y	N	N		A
Project ID									Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz 453-4211	
NPDES PERMIT NO: VA 0002867		OUTFALL # OR LOCATION: 001	
SAMPLE CHLORINATED? No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	

TESTS REQUESTED:	SPECIES OR EPA METH #		
	m. bahia	ACUTE ☑	CHRONIC ☐
	C. variegatus	ACUTE ☑	CHRONIC ☑

OTHER TESTS:

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME: 9/12/09 07:15		SAMPLE END DATE & TIME: 9/13/09 0715		AUTOSAMPLER TEMP. (°C): 4.0	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES: 96	VOL (ml) SUBSAMPLES: 200ml		TIME INCREMENT: 15 min	
	SET VOLUME SUBSAMPLE:	SET VOLUME FLOW: 175,500 gal/day		TOTAL VOLUME:	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
33.1	7.2	3.8		9/12/09 0730	TAS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
[signature]	9/18/09	10:10	Beverly Foxwell Anderson

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY X OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE X OTHER____

SAMPLE ARRIVAL TEMP: (°C) 5 ARRIVED ON ICE? YES X NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of September, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
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25														
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28														
29														
30	16:20	<2	9.69	<0.1	21.8	8.10	18	16:30	<2	10.00	<0.1	21.6	8.16	18
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Conrad*

Name of Sampler: Ted Schultz

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of September, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
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28														
29														
30	17:00	<2	9.54	<0.1	21.7	8.09	18	17:10	<2	9.60	<0.1	21.9	8.17	18
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Dempster*

Name of Sampler: Ted Schultz

AttachmentHandler.ashx

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 9/1/09 To 9/6/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Theodore Schultz 10/5/2009
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 9/7/09 To 9/13/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Theodore Schultz 9/14/09
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 9/14/07 To 9/20/07

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE *
	✓	

*Comments on Noncompliance

Theodore Schultz - Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 9/21/09 To 9/30/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Signature of Principal Officer or Authorized Agent / Date

Swift Creek Environmental, Inc.

8201 County Drive
Disputanta, Virginia 23842-6144
Phone: 804-991-3213 Facsimile: 804-991-2194
E-mail: swiftcreekinc@aol.com

September 17, 2009
Project #06-012

Mr. William Purcell
Omega Protein
P.O. Box 175
Reedville, Virginia 22801

Re: 3rd Quarter 2009 Ground Water Monitoring Report
Aerated Lagoon
Omega Protein, Reedville, Virginia
VPDES Permit No. VA0003867

Dear Mr. Purcell:

With requirements to the VPDES Permit No. VA0003867, Swift Creek Environmental, Inc, has completed the 2009, 3rd quarterly ground water monitoring report for the above referenced facility. The location of the facility is depicted on Figure 1 - Site Vicinity Map. The lagoon wells sampled are designated and identified as monitor wells, MWL1, MWL2, MWL3, MWL4, MWL5 and MWL6. The location of the lagoon monitor wells are presented on the attached Potentiometric Surface Map - Figure 2.

A third order survey was conducted to determine relative well elevations and static ground water levels. Monitor well, ground water levels and relative elevations are presented in Table 1. An arbitrary datum of 10.00 feet (from USGS. 7.5 minute Reedville, Virginia Quadrangle) was established as a benchmark.

TABLE 1. Monitor Well Elevation, Ground Water Level & Product Data

Monitor Well	Total Depth (feet)	Depth to GW (feet)	PID Reading (ppm)	Elevation - Top of Casing	Elevation - GW (feet)
MWL1	15.0	10.84	0	13.52	2.68
MWL2	15.0	10.06	0	12.20	2.14
MWL3	15.0	3.15	0	8.36	5.21
MWL4	15.0	11.60	0	14.80	3.20
MWL5	15.0	3.91	0	12.48	8.57
MWL6	15.0	4.15	0	12.17	8.02

Topographic and groundwater data indicates that ground water flow is to the south. Attached as Figure 2 is the Lagoon Potentiometric Surface Map.

On August 31, 2009, the lagoon monitor wells were developed and sampled for parameters as required in the VPDES Permit and requested by the VDEQ. Ground water samples were obtained from on-site monitor wells MWL1 through MWL6. Depth to ground water and total well depths were obtained using an oil/water interface probe to calculate the height of the standing water column in the monitor wells. After the volume of standing water was calculated in the monitor wells, a minimum of three well volumes of ground water was removed. Ground water samples were then collected using clean, disposable, plastic bailers to minimize the potential for cross contamination of monitor wells. The samples were placed in an insulated cooler packed with ice for shipment to the laboratory. The water samples were submitted to Air, Water and Soil Laboratories, Incorporated for laboratory analysis of Aluminum, Copper, Silver, Fecal Coliform, Nitrate, Chloride, Ammonia, TOC and Phosphorous. Chain of Custody forms were completed on-site and submitted with the samples. Chemical results for the 2009, 3rd Quarter sampling event are presented in Tables 2 and 3. The Certificates of Analyses and Chain of Custody are attached.

TABLE 2. Summary of Field Ground Water Results

Sample ID/Monitor well	Turbidity	pH	Specific Conductivity	Dissolved Oxygen	Temperature
SC-OP-MWL1	11.18	5.62	1417	2.68	15.1
SC-OP-MWL2	11.76	5.49	1272	3.89	15.6
SC-OP-MWL3	20.00	5.41	929	3.50	16.1
SC-OPMWL4	185	5.18	344	3.15	16.3
SC-OP-MWL5	70	6.02	557	3.78	16.4
SC-OP-MWL6	50	6.04	125	3.83	16.3
Units	µn	SU	u/s	mg/l	Celsius
Quantification Limits	.01	0.01	1.0	.01	0.1

TABLE 3. Summary of Analytical Ground Water Results

Sample ID Monitor well	Al	Cu	Ag	E-Coli	Nitrate	Chloride	Ammonia	TOC	Phosphorus
SC-OP-MWL1	4.92	0.021	<0.01	1410	<0.1	120	3.49	36.7	0.08
SC-OP-MWL2	0.435	<0.01	<0.01	<1	7.2	185	11.3	4.3	<0.01
SC-OP-MWL3	0.491	<0.01	<0.01	<1	18.4	94.5	0.95	1.7	0.19
SC-OP-MWL4	18.9	<0.01	<0.01	<1	3.1	32.7	<0.1	2.1	0.15
SC-OP-MWL5	38.0	0.01	<0.01	<1	2.9	135	1.11	2.1	0.08
SC-OP-MWL6	7.19	<0.01	<0.01	<1	1.2	9.6	<0.1	1.8	<0.01
Units	mg/l	mg/l	mg/l	MPN	mg/l	mg/l	mg/l	mg/l	mg/l
Quantification Limits	0.05	0.01	0.01	1.0	0.1	1.0	0.1	1.0	0.05-0.5
002 Outfall Discharge Limits	-	NL	NL	200	NL	NL	45	NL	NL
MCL's Primary or Secondary	-	1.3	0.1	0.0	10	250	-	-	-

The recorded E-Coli concentration of 1410 MPN/100ml in monitor well, MWL1 exceeds the permitted discharge limitations. Historical E-Coli concentrations in this well have been recorded to be <1 MPN/100ml to 160 MPN/100ml, while Cockrell Creek and the adjacent pond recorded historical E-Coli concentrations of 2420 MPN/100ml and 1730 MPN/100ml, respectively. Presented in Table 4 are the historical E-Coli concentrations recorded in monitor well, MWL1 as well as the adjacent surface water bodies.

TABLE 4. Historical Summary of E-Coli Analytical Ground Water Results for MWL1

Date	E-Coli
9/8/06	48
12/1/06	<1
2/28/07	<1
5/30/07	<1
9/27/07	1
11/29/07	<1
3/25/08	<1
6/3/08	160
8/29/08	3
12/4/08	6
2/27/09	<1
5/28/09	1
8/31/09	1410

Historical Summary of E-Coli Analytical Results for Cockrell Creek and Pond	
Cockrell Creek	2420
Pond	1730
Units	MPN
Quantification Limits	1.0
002 Outfall Discharge Limits	200 MPN/100ml
MCL's Primary or Secondary	0.0

Continued sampling of the monitor wells is required to determine if the recorded E-Coli concentration in monitor well, MW1 is an anomaly or indicative of potential ground water impairment.

Nitrate concentrations in monitor well, MWL3 continue to exceed federal drinking water standards. The average Nitrate concentration in monitor well, MWL3 prior to this sampling event was 7.10 mg/l, with a range between 3.02 mg/l and 18.4 mg/l. The remaining parameters quantitatively analyzed for this sampling event were below Outfall Discharge Limits and/or the federal primary or secondary drinking water standard. The next quarterly ground water sampling event is scheduled for December 2009.

Should you have any questions regarding this letter, please contact me at 804.991.3213. Thank you for the opportunity to serve you.

Sincerely,

B. Thomas Houghton, Principal
Virginia Professional Geologist #950

attachments: Site Vicinity Map
Potentiometric Surface Map
Certificates of Analyses and Chain of Custody

cc: Ms. Denise Mosca - VDEQ Piedmont Regional Office

SCALE 1:24.000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

USGS 7.5 Minute Topographic Survey

Reedville, VA - 1968 - Minor Revison 1992

N

Swift Creek Environmental, Inc.

8201 County Drive, Disputanta, VA 23842-6144

Figure No.:	FIGURE 1		
Figure Name:	Site Vicinity Map		
Client:	Omega Protein	Job No.:	06-012
Site:	Reedville, Virginia	Date:	01/2009

SCALE 1:24,000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

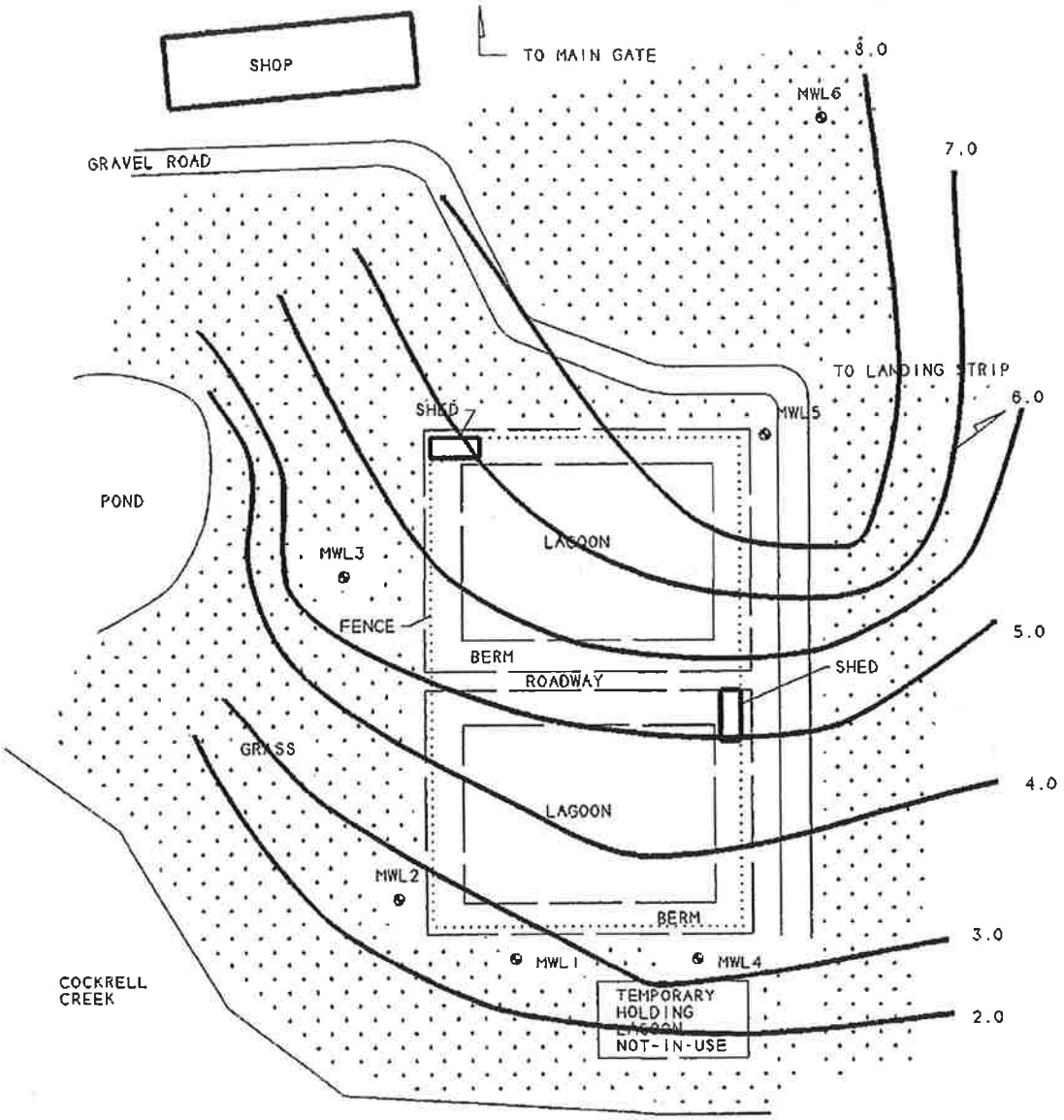
USGS 7.5 Minute Topographic Survey

Reedville, VA - 1968 - Minor Revison 1992

Figure No.:	FIGURE 1		
Figure Name:	Site Vicinity Map		
Client:	Omega Protein	Job No.:	06-012
Site:	Reedville, Virginia	Date:	01/2009

Swift Creek Environmental, Inc.

8201 County Drive, Disputanta, VA 23842-6144



Swift Creek Environmental, Inc.

8201 County Drive, Disputanta, VA 23842-6144

FIGURE NO: 2	
FIGURE NAME: POTENTIOMETRIC SURFACE MAP	
CLIENT: OMEGA PROTEIN	JOB NO: 06-012
SITE: REEDVILLE, VA	DATE: 09/09

AIR WATER SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09080612

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: August 31, 2009
Date Issued: September 08, 2009

Submitted To: Tom Houghton
Project Number: 06-012

Client Site I.D.: Omega Protein Lagoon Monitor Wells
Purchase Order: 06-012

Sample I.D.: SC-OP-MWL1
Laboratory Sample I.D.: 09080612-001
Date/Time Sampled: 08/31/09 12:00

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	1410 mpn/100mL	1	08/31/2209 17:00	ETS
Aluminum	SW6010C	4.92 mg/L	0.050	09/08/09 14:05	MWL
Copper	SW6010C	0.021 mg/L	0.010	09/08/09 14:05	MWL
Silver	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:05	MWL
Ammonia	EPA350.1/R2.0	3.49 mg/L	0.10	09/02/09 11:13	LMT
Chloride	EPA300.0/R2.1	120 mg/L	1.0	09/04/09 14:11	CLA
Nitrate	Calc.	< 0.1 mg/L	0.1	09/01/09 9:09	LMT
Nitrate+Nitrite	SM18/4500-NO3 F	< 0.1 mg/L	0.1	09/03/09 12:43	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	09/01/09 9:09	LMT
Phosphorus, Total	SM18/4500-P E	0.08 mg/L	0.01	09/04/09 10:22	LMT
Total Organic Carbon (TOC)	SW9060	36.7 mg/L	1.0	09/08/09 9:46	NBA

Sample I.D.: SC-OP-MWL2
Laboratory Sample I.D.: 09080612-002
Date/Time Sampled: 08/31/09 13:05

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	08/31/2209 17:00	ETS
Aluminum	SW6010C	0.435 mg/L	0.050	09/08/09 14:08	MWL
Copper	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:08	MWL
Silver	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:08	MWL
Ammonia	EPA350.1/R2.0	11.3 mg/L	0.10	09/02/09 11:15	LMT
Chloride	EPA300.0/R2.1	185 mg/L	1.0	09/04/09 14:25	CLA
Nitrate	Calc.	7.2 mg/L	0.1	09/01/09 9:09	LMT
Nitrate+Nitrite	SM18/4500-NO3 F	7.2 mg/L	0.1	09/03/09 12:46	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	09/01/09 9:09	LMT
Phosphorus, Total	SM18/4500-P E	< 0.01 mg/L	0.01	09/04/09 10:22	LMT
Total Organic Carbon (TOC)	SW9060	4.3 mg/L	1.0	09/08/09 9:46	NBA

AIR WATER & SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09080612

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: August 31, 2009
Date Issued: September 08, 2009

Submitted To: Tom Houghton
Client Site I.D.: Omega Protein Lagoon Monitor Wells

Project Number: 06-012
Purchase Order: 06-012

Sample I.D.: SC-OP-MWL3 Laboratory Sample I.D.: 09080612-003
Date/Time Sampled: 08/31/09 13:35

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	08/31/2209 17:00	ETS
Aluminum	SW6010C	0.491 mg/L	0.050	09/08/09 14:11	MWL
Copper	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:11	MWL
Silver	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:11	MWL
Ammonia	EPA350.1/R2.0	0.95 mg/L	0.10	09/02/09 11:18	LMT
Chloride	EPA300.0/R2.1	94.5 mg/L	1.0	09/03/09 17:44	CLA
Nitrate	Calc.	18.4 mg/L	0.1	09/01/09 9:09	LMT
Nitrate+Nitrite	SM18/4500-NO3 F	18.4 mg/L	0.1	09/03/09 12:49	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	09/01/09 9:09	LMT
Phosphorus, Total	SM18/4500-P E	0.19 mg/L	0.01	09/04/09 10:22	LMT
Total Organic Carbon (TOC)	SW9060	1.7 mg/L	1.0	09/08/09 9:46	NBA

Sample I.D.: SC-OP-MWL4 Laboratory Sample I.D.: 09080612-004
Date/Time Sampled: 08/31/09 12:25

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	08/31/2209 17:00	ETS
Aluminum	SW6010C	18.9 mg/L	0.050	09/08/09 14:14	MWL
Copper	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:14	MWL
Silver	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:14	MWL
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	09/02/09 11:20	LMT
Chloride	EPA300.0/R2.1	32.7 mg/L	1.0	09/03/09 19:36	CLA
Nitrate	Calc.	3.1 mg/L	0.1	09/01/09 9:09	LMT
Nitrate+Nitrite	SM18/4500-NO3 F	3.1 mg/L	0.1	09/03/09 12:52	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	09/01/09 9:09	LMT
Phosphorus, Total	SM18/4500-P E	0.15 mg/L	0.01	09/04/09 10:22	LMT
Total Organic Carbon (TOC)	SW9060	2.1 mg/L	1.0	09/08/09 9:46	NBA

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Certificate of Analysis

Final Report

Laboratory Order ID 09080612

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: August 31, 2009
Date Issued: September 08, 2009

Submitted To: Tom Houghton
Project Number: 06-012
Client Site I.D.: Omega Protein Lagoon Monitor Wells
Purchase Order: 06-012

Sample I.D.: SC-OP-MWL5
Laboratory Sample I.D.: 09080612-005
Date/Time Sampled: 08/31/09 13:50

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	08/31/2209 17:00	ETS
Aluminum	SW6010C	38.0 mg/L	0.050	09/08/09 14:27	MWL
Copper	SW6010C	0.010 mg/L	0.010	09/08/09 14:16	MWL
Silver	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:16	MWL
Ammonia	EPA350.1/R2.0	1.11 mg/L	0.10	09/02/09 11:22	LMT
Chloride	EPA300.0/R2.1	135 mg/L	1.0	09/04/09 14:39	CLA
Nitrate	Calc.	2.9 mg/L	0.1	09/01/09 9:09	LMT
Nitrate+Nitrite	SM18/4500-NO3 F	2.9 mg/L	0.1	09/03/09 12:55	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	09/01/09 9:09	LMT
Phosphorus, Total	SM18/4500-P E	0.08 mg/L	0.01	09/04/09 10:22	LMT
Total Organic Carbon (TOC)	SW9060	2.1 mg/L	1.0	09/08/09 9:46	NBA

Sample I.D.: SC-OP-MWL6
Laboratory Sample I.D.: 09080612-006
Date/Time Sampled: 08/31/09 14:15

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	08/31/2209 17:00	ETS
Aluminum	SW6010C	7.19 mg/L	0.050	09/08/09 14:25	MWL
Copper	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:25	MWL
Silver	SW6010C	< 0.01 mg/L	0.010	09/08/09 14:25	MWL
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	09/02/09 11:25	LMT
Chloride	EPA300.0/R2.1	9.6 mg/L	1.0	09/03/09 20:04	CLA
Nitrate	Calc.	1.2 mg/L	0.1	09/01/09 9:09	LMT
Nitrate+Nitrite	SM18/4500-NO3 F	1.2 mg/L	0.1	09/03/09 12:58	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	09/01/09 9:09	LMT
Phosphorus, Total	SM18/4500-P E	< 0.01 mg/L	0.01	09/04/09 10:22	LMT
Total Organic Carbon (TOC)	SW9060	1.8 mg/L	1.0	09/08/09 9:46	NBA

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Certificate of Analysis

Final Report

Laboratory Order ID 09080612

Client Name:	Swift Creek Environmental, Inc. 8201 County Drive Disputanta, VA 23842	Date Received: Date Issued:	August 31, 2009 September 08, 2009
Submitted To:	Tom Houghton	Project Number:	06-012
Client Site I.D.:	Omega Protein Lagoon Monitor Wells	Purchase Order:	06-012

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a dry weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

AIR WATER SOIL LABORATORIES, INC.

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RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

CLIENT NAME: Swift Creek Env., Inc	PROJECT NAME: Omega Protein
CLIENT CONTACT: Tom Houghton	SITE NAME: Lagoon Monitor wells
CLIENT ADDRESS: 8801 County Dr.	PROJECT NUMBER: 06-012
CLIENT PHONE NUMBER: 991-3213	P.O. NUMBER: 06-012
CLIENT FAX NUMBER: 991-2194 EMAIL:	REGULATORY AUTHORITY:
Is sample for compliance reporting? (YES) NO	Is sample from a chlorinated supply? YES (NO) PWS I.D. #:
SAMPLER NAME (PRINT): B. Keith Eaton SAMPLER SIGNATURE:	Turn Around Time: 5 Day(s)

Have ammonia and TKN samples been verified to be dechlorinated at the time of sampling?: YES NO

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	MATRIX: Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other	E-Coli	Chloride	Copper HNO3 Aluminum pH<2 Silver	H2SO4 Ammonia pH<2	H2SO4 Nitrate pH<2	H2SO4 Total Phos. pH<2	TOC	COMMENTS: Quote I.D.: PLEASE NOTE PRESERVATIVE(S) or PUMP RATE (L/min)
1) SC-OP-MWL1			8/31/09	1300	6	X			X						X	X	X	X	X	X	X	
2) SC-OP-MWL2				1305	6	X			X						X	X	X	X	X	X	X	
3) SC-OP-MWL3				1335	6	X			X						X	X	X	X	X	X	X	
4) SC-OP-MWL4				1225	6	X			X						X	X	X	X	X	X	X	
5) SC-OP-MWL5				1350	6	X			X						X	X	X	X	X	X	X	
6) SC-OP-MWL6				1415	6	X			X						X	X	X	X	X	X	X	
7)																						
8)																						
9)																						
10)																						

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
[signature]	8/31/09 1630	A McDaniel	8-31-09 16:30
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package: Level I ☐ Level II ☐ Level III ☐ Level IV ☐

LAB USE ONLY — COOLER TEMP 1.6 °C

SCE 09080612
Omega Protein Lagoon Monito DUE: 5 Days
Recd: 08/31/09

319.xls

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SCE
Omega Protein Lagoon Monito
09080612
DUE: 5 Days
Recd: 08/31/09

Sample Conditions Checklist

Opened by: (print) A McGinley **Lab ID No.:**

(sign) A McGinley **Date Cooler Opened:** 8-31-09

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☐ Walk In ☑			
2.	Were custody seals used?	☐	☐	☑
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
6.	Are the samples received on ice?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (4 degrees Celsius +/-2)	☑	☐	☐
8.	Are all samples within holding time for requested tests?	☑	☐	☐
9	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
10	Are all samples in proper containers for the analyses requested?	☑	☐	☐
11	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
12	Are all volatile organic containers free of headspace?	☐	☐	☑

COMMENTS

2ND 2001

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

CBI
Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	Prepared By:
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23071 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results

Species-Test Method	48-h LC50	95% C.L.	$T.U._{Ac}$	NOAEC
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

Chronic Test Results*

Species-Test Method	Endpoint	NOEC	LOEC	ChrV	PMSD	$T.U._C$	IC25	48-h LC50	LC50 95% C.L.	$T.U._{Ac}$
M. bahia EPA 1007.0	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
	Biomass	100	>100	>100	23	1.00	>100	N/A	N/A	N/A
	Fecundity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C. variegatus EPA 1004.0	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
	Biomass	100	>100	>100	18	1.00	>100	N/A	N/A	N/A

*Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable. Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits.

Acute Test Biological Summary Data

Species-Method	Endpoint	Sample Concentration (%) Control	3.50	7.00	14.0	28.0	100
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	100	100

Chronic Test Biological Summary Data

Species-Method	Endpoint	Sample Concentration (%) Control	0.50	0.90	1.80	3.60	100
M. bahia EPA 1007.0	Survival (%):	95	93	100	95	93	98
	Biomass (mg)	0.313	0.305	0.367	0.370	0.337	0.392
	Fecundity (%):	27	45	33	32	25	26
C. variegatus EPA 1004.0	Survival (%):	100	100	100	100	98	100
	Biomass (mg):	1.020	1.146	1.059	0.993	1.014	1.020

EPA Laboratory ID: VA01116

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

Coastal Bioanalysts, Inc.

Test Information Species-Method	Start Date/Time End Date/Time	Organism Source	Hatch/Harvest Date/Time	Acclimation Temp.	Acclimation Water	Test Aerated?
M. bahia EPA 2007.0	9/17/09 1500 9/19/09 1450	CBI Stock	9/15/09 1100 9/16/09 1100	25° C	HWM ASW 20 g/kg sal.	Yes
C. variegatus EPA 2004.0	9/17/09 1510 9/19/09 1500	CBI Stock	9/5/09 1200 9/6/09 1200	25° C	HWM ASW 20 g/kg sal.	Yes
M. bahia EPA 1007.0	9/15/09 1215 9/22/09 1255	CBI Stock	9/7/09 1000 9/8/09 1000	25° C	HWM ASW 20 g/kg sal.	Yes
C. variegatus EPA 1004.0	9/15/09 1200 9/22/09 1215	CBI Stock	9/14/09 1630 9/15/09 1030	25° C	HWM ASW 20 g/kg sal.	Yes

Sample/Dilution Water Data	Acute Test		Chronic Test			
		Dilution*	Sample		Dilution Water*	
Water Quality Parameter (Units)	Sample	Water	Mean	Std. Dev.	Mean	Std. Dev.
Arrival Temperature (°C)	2	N/A	3	1.5	N/A	N/A
Use Temperature (°C)	25	26	26	0.5	25	0
Arrival Salinity (g/kg)	16	N/A	16	0	N/A	N/A
Use Salinity (g/kg)	20	20	20	0.5	20	0.5
pH (S.U.)	7.26	7.71	7.28	0.14	7.88	0.09
Dissolved Oxygen (mg/l)	6.2	7.3	4.7	2.0	7.3	0
Total Hardness (mg/l as $CaCO_3$)	2980	N/A	2913	70	N/A	N/A
Alkalinity (mg/l as $CaCO_3$)	106	N/A	102	3.8	N/A	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A	<Q.L.	0	N/A	N/A
Ammonia (mg/l NH_3-N)	2.7	N/A	3.1	0.3	N/A	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG0903-A	9/15/09 0700	9/15/09 1200, 1215	9/16/09 1120, 1140	Salt Added
OMEG0903-B	9/17/09 0715	9/17/09 1315, 1330 9/17/09 1500, 1510*	N/A	Salt Added Aerated 0-3 min
OMEG0903-C	9/18/09 0715	9/18/09 1150, 1200	9/19/09 1355, 1405 9/20/09 1125, 1140 9/21/09 1020, 1030	Salt Added, Aerated 0-4.5 min

*Acute tests

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	3.50	7.00	14.0	28.0	100	Cont.	3.50	7.00	14.0	28.0	100
Temp. (°C)	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0
D.O. (mg/l)	7.2 0.1	7.1 0.1	7.1 0.1	7.1 0.1	7.0 0.1	6.7 0.6	7.1 0.2	7.1 0.1	7.1 0.1	7.0 0.1	7.0 0.1	6.6 0.6
pH (S.U.)	7.91 0.07	7.89 0.09	7.91 0.11	7.93 0.13	7.93 0.16	7.90 0.33	7.92 0.08	7.89 0.10	7.91 0.13	7.80 0.28	7.93 0.18	7.88 0.31

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

CBI
Coastal Bioanalysts, Inc.

Chronic Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 1007.0						*C. variegatus* 1004.0					
% Conc:	Cont.	0.50	0.90	1.80	3.60	100	Cont.	0.50	0.90	1.80	3.60	100
Temp. (°C)	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5
D.O. (mg/l)	7.0 0.3	6.9 0.4	6.9 0.4	6.8 0.4	6.8 0.5	6.1 0.8	7.0 0.3	7.0 0.3	6.9 0.3	6.9 0.3	6.8 0.4	6.0 0.8
pH (S.U.)	7.77 0.13	7.75 0.08	7.76 0.10	7.74 0.18	7.78 0.10	7.69 0.18	7.70 0.08	7.72 0.09	7.72 0.08	7.73 0.09	7.71 0.16	7.58 0.22
Salinity (g/kg)	20 0.4	20 0.4	20 0.4	20 0.4	20 0.4	20 0.6	20 0.4	20 0.4	20 0.4	20 0.4	20 0.4	20 0.6

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0 (9/8/09-9/10/09)	RTT	100	526	481-576	Yes
	CC	100	610	504-716	
C. variegatus 2004.0 (9/8/09-9/10/09)	RTT	100	1112	997-1239	Yes
	CC	99	1094	925-1263	

Chronic Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures									
Species-Method (Ref. Test Date)	Data Source	% Survival		Biomass (mg)					RTT in Control?
		Cont	NOEC	Cont.	NOEC	PMSD	IC25	IC25 A.L.	
M. bahia 1007.0 (9/8/09-9/15/09)	RTT	90	250	0.36	250	29	349	N/A	Yes
	CC	93	250	0.32	250	22	484	341-628	
C. variegatus 1004.0 (9/8/09-9/15/09)	RTT	98	1000	1.45	500	12	1069	N/A	Yes
	CC	99	1000	1.26	500	14	954	611-1298	

Note: RTT = Reference Toxicant Test, CC = Control Chart, Cont. = Control group. Based on control chart data (n>62) fecundity (Method 1007.0) is not a sensitive endpoint for KCl toxicity and hence not reported; fecundity data available upon request.

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

9/29/09
Date

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

EPA Laboratory ID: VA01116

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean $\pm$ 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
3.50	1-A	10	10	10	100
	1-B	10	10	10	
7.00	2-A	10	10	10	100
	2-B	10	10	10	
14.0	3-A	10	10	10	100
	3-B	10	10	10	
28.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	PB	PB	
Count Time:		1500	0900	1450	*Test End Time

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 9/15/09 1100

Date /time end: 9/16/09 1100

Acclimation: Water: ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml ___ 250 ml

Solution volume: ✓ 200 ml _____ ml

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 9/17/09

Time water added: 1445

Time mysids added: 1500

Set up by (initials): PB

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.83	7.97	7.93
	1	7.80	7.98	7.88
	2	7.78	7.99	7.95
	3	7.78	8.04	7.97
	4	7.74	8.05	7.99
	5	7.52	8.07	8.10
D.O. (mg/l)	C	7.3	7.1	7.1
	1	7.2	7.1	7.0
	2	7.2	7.1	7.1
	3	7.1	7.0	7.1
	4	7.0	7.0	7.1
	5	6.00	7.1	7.1
Salinity (g/kg)	C	20		21
	1			
	2			
	3			
	4			
	5	20		21
Replicate Measured:		A	B	A
Initials:		PB	PB	bjp
TRC (mg/l) in highest conc. at end of test:				NA

NOTES:
① D.O. dropped to 4.1 Test Aerated @ 1600. PB

Peer Rev. by: PB Date: 9/28/09

TEST I.D. DMEC0903 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV)

FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
3.50	1-A	10	10	10	100
	1-B	10	10	10	
7.00	2-A	10	10	10	100
	2-B	10	10	10	
14.0	3-A	10	10	10	100
	3-B	10	10	10	
28.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	PB	PB	
Count Time:		1510	0905	1500	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.83	7.99	7.94
	1	7.80	8.00	7.88
	2	7.78	8.03	7.93
	3	7.78	8.09	7.54
	4	7.74	8.10	7.96
	5	7.52	8.10	8.01
D.O. (mg/l)	C	7.3	7.0	7.0
	1	7.2	7.0	7.1
	2	7.2	7.1	7.1
	3	7.1	6.9	6.9
	4	7.0	6.9	7.1
	5	6.0①	6.9	7.0
Salinity (g/kg)	C	20		21
	1			
	2			
	3			
	4			
	5	20		21
Replicate Measured:		A	B	A
Initials:		PB	PB	bja
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other: _____

Hatch: Date/time start: 9/5/09 1200

Date /time end: 9/6/09 1200

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml _____ ml

Solution volume: ✓ 400 ml _____ ml

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 9/17/09

Time water added: 1445

Time fish added: 1510

Set up by (initials): PB

NOTES:
① D.O. dropped to 4.0 Aeration started @ 1600 PB.

Peer Rev. by: PB Date: 9/28/09

TEST I.D. DMEG0903 -ACV

BASELINE TEST INFO – MYSID 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0011D
Effective Date: 2/1/09

TEST ORGANISM INFO

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI Stock Cultures: ✓

Other: _____

Harvest Date/Time: From 9/7/09 1000

To 9/8/09 1000

Acclimation: Water: ASW 20 g/kg salinity ✓

Other: _____

Temp. (°C): 25

Feeding Prior to Test: *Artemia ad libitum* 2X/day

Feeding During Test: *Artemia* ca. 75/mysid, 2X/day

Arrival Date: N/A
(non-CBI)

TEST DESIGN

Test Chamber: 1000 ml Tri-pour Beaker ✓

Other _____

Solution Vol: 200 ml ✓

Other _____

Illumination: 16:8 L:D 10-20 uE/m^2/s

Number of Replicates/Concentration: 8

Initial Number of Mysids/Replicate: 5

TEST SET UP (Day 0)

Set Up Date: 9/15/09

Set Up By: PB

Time Water Added: 1140

Time Animals Added: 1215

NOTES

Peer Review by PB/LD Date 9/28/09

Test I.D. OMEGA903 -CMB

WATER QUALITY DATA – *Mysidopsis bahia* 7-DAY TEST COASTAL BIOANALYSTS, INC FORM ETF0012B EFFECTIVE DATE: 6/30/07

Para-meter	Treat-ment	Day 0 Initial	Day 1 Final	Day 1 Initial	Day 2 Final	Day 2 Initial	Day 3 Final	Day 3 Initial	Day 4 Final	Day 4 Initial	Day 5 Final	Day 5 Initial	Day 6 Final	Day 6 Initial	Day 7 Final
TEMP (°C)	C	24	25	26	25	25	25	26	25	26	25	25	25	25	25
	1	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	2	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	3	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	4	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	5	26	25	26	25	25	25	26	25	26	25	25	25	25	25
pH (S.U.)	C	7.86	7.67	7.70	7.68	7.72	7.87	7.79	7.80	7.71	7.84	7.77	7.43	7.89	7.94
	1	7.86	7.62	7.70	7.68	7.72	7.87	7.78	7.62	7.71	7.73	7.80	7.26	7.83	7.83
	2	7.86	7.62	7.76	7.69	7.72	7.87	7.79	7.68	7.71	7.80	7.85	7.61	7.88	7.91
	3	7.86	7.60	7.70	7.69	7.72	7.88	7.81	7.68	7.72	7.83	7.81	7.68	7.90	7.94
	4	7.86	7.61	7.70	7.69	7.72	7.90	7.76	7.86	7.72	7.81	7.81	7.68	7.83	7.92
	5	7.49	7.78	7.51	7.75	7.40	7.96	7.76	7.88	7.39	7.78	7.67	7.74	7.67	7.87
D.O. (mg/l)	C	7.3	6.4	7.0	6.3	7.0	7.1	7.3	7.0	7.1	7.1	7.2	7.1	7.1	7.1
	1	7.3	6.4	7.0	6.2	7.0	7.1	7.2	6.0	7.1	7.1	7.2	7.1	7.0	7.1
	2	7.2	6.4	7.0	6.0	7.0	7.0	7.1	6.4	7.1	7.0	7.2	7.1	6.8	7.0
	3	7.2	6.3	7.0	6.0	7.0	6.9	6.6	6.4	7.1	6.9	7.2	7.1	6.6	7.0
	4	7.2	6.3	6.2	5.7	7.0	6.8	6.9	7.2	7.1	6.8	7.1	7.1	6.9	6.9
	5	6.2	6.1	5.3	5.3	4.3 ①	6.7	5.2	6.8	5.6	6.6	7.0	7.1	6.9	6.8
SALIN (g/kg)	C		20		20		21		20		20		20		20
	1		20		20		21		20		20		20		20
	2		20		20		21		20		20		20		20
	3		20		20		21		20		20		20		20
	4		20		20		21		20		20		20		20
	5		20		20		21		20		20		19		20
Replicate:		A	B	C	H	B	G	G	E	B	C	D	A	B	E
Initials:		AB	PB	PB	PB	PB	PB	LD	Dig	PB	CA	CA	LA	CA	CA

① DO dropped to 2.8 Aeration started at 1600. PB

TEST I.D. OMEG-0903 -CMB

SURVIVAL DATA – MYSID 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0013C
Effective Date: 11/27/07

Treatment	Rep Ltr	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Final % Live
	A	5	5	5	5	4	4	4	
C	B	5	5	5	5	5	5	5	
	C	5	5	5	5	5	5	5	
	D	5	5	5	5	5	5	5	
	E	5	5	5	5	5	5	5	95
	F	5	5	5	5	5	5	4	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	5	
	A	5	5	5	5	5	5	4①	
1	B	5	5	5	5	5	5	5	
	C	5	5	5	5	5	5	5	
0.50%	D	5	5	5	5	5	5	4	
% Conc.	E	5	5	5	5	5	5	5	93
	F	5	5	5	5	5	5	5	
6	G	5	5	5	5	5	5	5	
Vol. Spl.*	H	5	5	5	5	5	5	4	
	A	5	5	5	5	5	5	5	
2	B	5	5	5	5	5	5	5	
	C	5	5	5	5	5	5	5	
0.90%	D	5	5	5	5	5	5	5	
% Conc.	E	5	5	5	5	5	5	5	100
	F	5	5	5	5	5	5	5	
10.8	G	5	5	5	5	5	5	5	
Vol. Spl.*	H	5	5	5	5	5	5	5	
	A	5	5	5	5	4	4	4	
3	B	5	5	5	5	4	4	4	
	C	5	5	5	5	5	5	5	
1.80%	D	5	5	5	5	5	5	5	
% Conc.	E	5	5	5	5	5	5	5	95
	F	5	5	5	5	5	5	5	
21.6	G	5	5	5	5	5	5	5	
Vol. Spl.*	H	5	5	5	5	5	5	5	
	A	5	5	5	5	5	4①	4	
4	B	5	5	5	5	5	5	5	
	C	5	5	5	5	4	4	4	
3.60%	D	5	5	5	5	4	4	4	
% Conc.	E	5	5	5	5	5	5	5	93
	F	5	5	5	5	5	5	5	
43.2	G	5	5	5	5	5	5	5	
Vol. Spl.*	H	5	5	5	5	5	5	5	
	A	5	5	5	5	5	5	5	
5	B	5	5	5	5	5	4	4	
	C	5	5	5	5	5	5	5	
10.0%	D	5	5	5	5	5	5	5	
% Conc.	E	5	5	5	5	5	5	5	98
	F	5	5	5	5	5	5	5	
120	G	5	5	5	5	5	5	5	
Vol. Spl.*	H	5	5	5	5	5	5	5	
Renewal/Count Time:		1140	1330	1700	1405	1140	1030	1255#	
Initials:		PB	PB	PB	PB	CB	CB	CB	

① Stuck to side of beaker

*Volume sample added to total volume of 1200 ml for preparation of dilutions. # Time of final count = test end time.

Test I.D. OMEGA0903 -CMB

FECUNDITY/GROWTH DATA – MYSID 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0014G
Effective Date: 10/31/08

Treatment	Rep Ltr	Females w/eggs	Females No eggs	Males	Imma-ture	Pan No.	Total[1] Wt (mg)	Tare Wt (mg)
	A	1	11	1		1	8.22	6.24
C	B		111	11		2	7.92	6.58
	C		11	111		3	7.27	5.96
	D		111	11		4	8.39	6.98
	E	11	1	11		5	8.97	7.26
	F	1	11	1		6	8.68	7.22
	G	111	11			7	9.44	7.21
	H	1	111	1		8	8.41	6.94
	A		11	11		9	9.65	8.41
1	B	1	1	111		10	8.59	7.26
	C	11	1	11		11	8.67	7.12
0.52	D	11	1	1		12	8.66	7.10
% Conc.	E	1	11	11		13	8.73	6.71
	F	11	11	1		14	7.69	5.98
	G	11	1	11		15	8.27	6.43
	H	1	111			16	8.48	7.55
	A		1111	1		17	7.26	5.95
2	B	1	111	1		18	7.08	5.64
	C	1	111	1		19	7.65	5.43
0.90	D	11	11	1		20	9.20	7.16
% Conc.	E	1	11	11		21	8.69	6.82
	F	1	11	11		22	10.21	8.15
	G	1111		1		23	10.10	7.60
	H		11	111		24	8.04	6.31
	A	1	11	1		25	8.53	6.88
3	B	11	11			26	8.89	7.28
	C	1	111	1		27	10.22	7.96
1.80	D	1	1	111		28	9.64	8.04
% Conc.	E		1	1111		29	11.28	9.36
	F		111	11		30	9.05	7.45
	G	11	1	11		31	8.68	6.60
	H	1	11	11		32	10.92	8.82
	A	1	1	11		33	9.37	7.86
4	B	11	11	1		34	10.23	8.32
	C	11	1	1		35	8.78	7.27
3.60	D		1111			36	9.56	8.01
% Conc.	E		111	11		37	9.64	8.08
	F		111	1		38	8.07	6.64
	G		1	1111		39	10.79	8.64
	H	1	11	11		40	9.03	7.18
	A	11	11	1		41	10.93	8.08
5	B		1	111		42	10.18	8.46
	C		NNL			43	10.23	8.55
1.51	D		111	11		44	10.84	8.61
% Conc.	E	1	111	1		45	9.21	7.24
	F		111	11		46	10.43	8.50
	G	111	1	1		47	10.21	7.44
	H	111	11			48	10.50	8.37

[1]See printout of statistical analyses for biomass weights by replicate.
[2] True value ± estimated uncertainty of calibration weight (NIST traceable annual certification) = 10.00 ± 0.05 mg

TARE WT: DATE: 9/24 INITIALS: CB CALIB. CHECK (10.00 mg[2]): 10.01
TOTAL WT: DATE: 9/25 INITIALS: PB CALIB. CHECK (10.00 mg[2]): 10.00
SEXED BY: CB

Test I.D. OMEGA90 -CMB

Mysid Survival, Growth and Fecundity Test-7 Day Survival

Start Date:	9/15/2009 12:15	Test ID:	OMEG0903MB	Sample ID:	OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	MY-Mysidopsis bahia
Comments:					

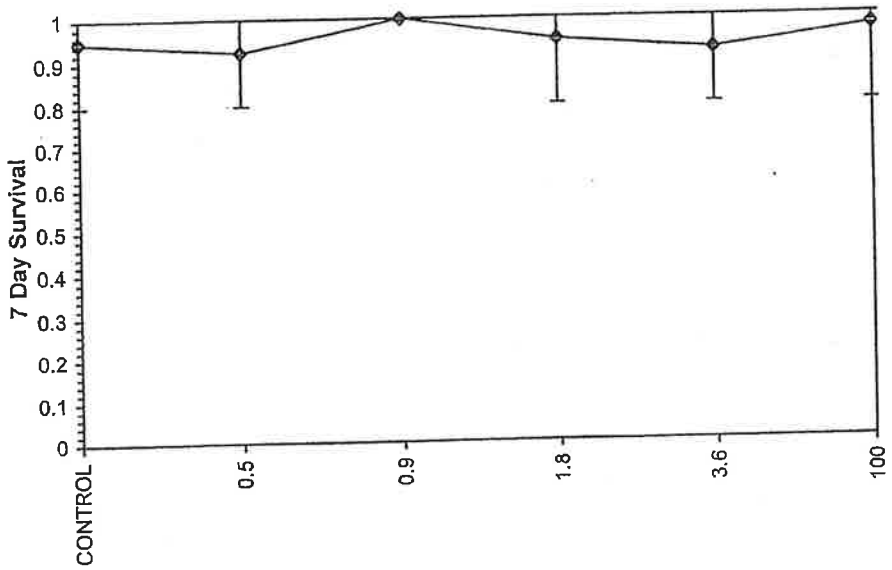
Conc-%	1	2	3	4	5	6	7	8
CONTROL	0.8000	1.0000	1.0000	1.0000	1.0000	0.8000	1.0000	1.0000
0.5	0.8000	1.0000	1.0000	0.8000	1.0000	1.0000	1.0000	0.8000
0.9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.8	0.8000	0.8000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3.6	0.8000	1.0000	0.8000	0.8000	1.0000	1.0000	1.0000	1.0000
100	1.0000	0.8000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
CONTROL	0.9500	1.0000	1.2857	1.1071	1.3453	8.574	8		
0.5	0.9250	0.9737	1.2560	1.1071	1.3453	9.813	8	64.00	46.00
0.9	1.0000	1.0526	1.3453	1.3453	1.3453	0.000	8	76.00	46.00
1.8	0.9500	1.0000	1.2857	1.1071	1.3453	8.574	8	68.00	46.00
3.6	0.9250	0.9737	1.2560	1.1071	1.3453	9.813	8	64.00	46.00
100	0.9750	1.0263	1.3155	1.1071	1.3453	6.400	8	72.00	46.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.77039	0.929	-1.0511	-0.4334
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	100	>100		1

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: _____

Mysid Survival, Growth and Fecundity Test-Biomass

Start Date:	9/15/2009 12:15	Test ID:	OMEG0903MB	Sample ID:	OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	MY-Mysidopsis bahia
Comments:					

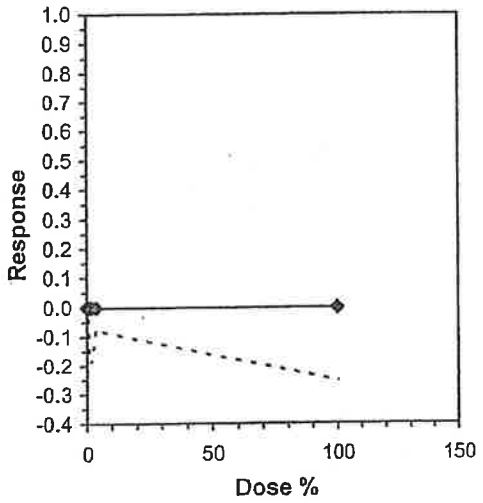
Conc-%	1	2	3	4	5	6	7	8
CONTROL	0.2920	0.2680	0.2740	0.2820	0.3540	0.2920	0.4460	0.2940
0.5	0.2480	0.2660	0.3100	0.3120	0.4040	0.3420	0.3680	0.1860
0.9	0.2620	0.2880	0.3440	0.4080	0.3740	0.4120	0.4980	0.3460
1.8	0.3300	0.3220	0.4480	0.3200	0.3840	0.3200	0.4160	0.4200
3.6	0.3020	0.3820	0.3020	0.3100	0.3120	0.2860	0.4300	0.3700
100	0.4500	0.3440	0.3360	0.4460	0.2940	0.3860	0.4540	0.4260

			Transform: Untransformed					1-Tailed			Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
CONTROL	0.3128	1.0000	0.3128	0.2680	0.4460	19.154	8				0.3471	1.0000
0.5	0.3045	0.9736	0.3045	0.1860	0.4040	22.935	8	0.265	2.306	0.0718	0.3471	1.0000
0.9	0.3665	1.1719	0.3665	0.2620	0.4980	20.405	8	-1.727	2.306	0.0718	0.3471	1.0000
1.8	0.3700	1.1831	0.3700	0.3200	0.4480	14.374	8	-1.839	2.306	0.0718	0.3471	1.0000
3.6	0.3368	1.0767	0.3368	0.2860	0.4300	15.128	8	-0.771	2.306	0.0718	0.3471	1.0000
100	0.3920	1.2534	0.3920	0.2940	0.4540	15.654	8	-2.546	2.306	0.0718	0.3471	1.0000

Auxiliary Tests					Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)					0.96204		0.929		0.30422	-0.3412
Bartlett's Test indicates equal variances (p = 0.92)					1.48277		15.0863			
Hypothesis Test (1-tail, 0.05)	**NOEC**	**LOEC**	**ChV**	**TU**	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Dunnett's Test	100	>100		1	0.07176	0.22946	0.00963	0.00387	0.04645	5, 42

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

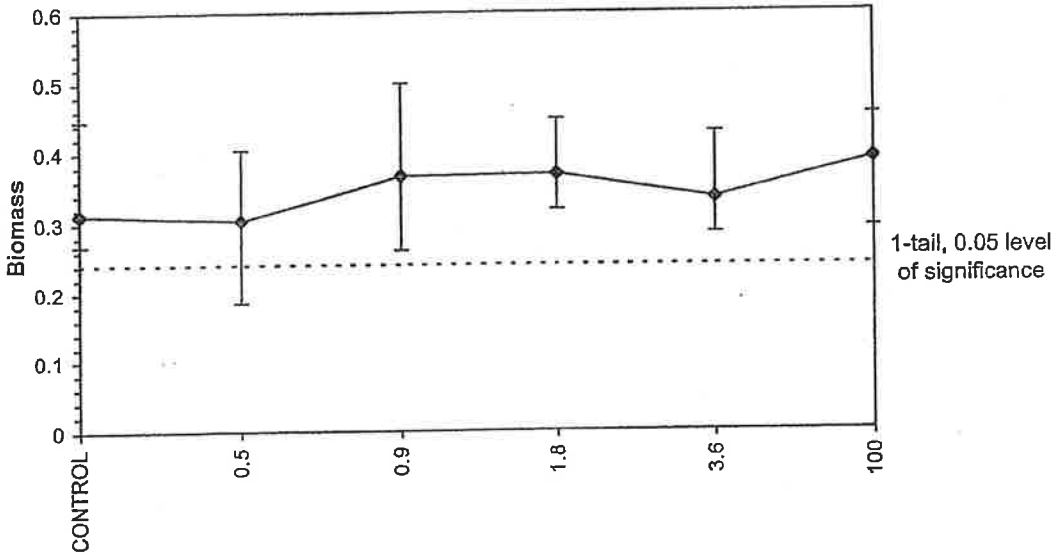


Reviewed by: RD

Mysid Survival, Growth and Fecundity Test-Biomass

Start Date:	9/15/2009 12:15	Test ID:	OMEG0903MB	Sample ID:	OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	MY-Mysidopsis bahia
Comments:					

Dose-Response Plot



Reviewed by: PD

Mysid Survival, Growth and Fecundity Test-Fecundity

Start Date:	9/15/2009 12:15	Test ID:	OMEG0903MB	Sample ID:	OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	MY-Mysidopsis bahia
Comments:					

Conc-%	1	2	3	4	5	6	7	8
CONTROL	0.3333	0.0000	0.0000	0.0000	0.6667	0.3333	0.6000	0.2500
0.5	0.0000	0.5000	0.6667	0.6667	0.3333	0.5000	0.6667	0.2500
0.9	0.0000	0.2500	0.2500	0.5000	0.3333	0.3333	1.0000	0.0000
1.8	0.3333	0.5000	0.2500	0.5000	0.0000	0.0000	0.6667	0.3333
3.6	0.5000	0.5000	0.6667	0.0000	0.0000	0.0000	0.0000	0.3333
100	0.5000	0.0000	0.0000	0.0000	0.2500	0.0000	0.7500	0.6000

			Transform: Arcsin Square Root					1-Tailed		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
CONTROL	0.2729	1.0000	0.5679	0.2928	0.9553	44.737	8			
0.5	0.4479	1.6412	0.7421	0.3614	0.9553	30.081	8	-1.304	2.306	0.3081
0.9	0.3333	1.2214	0.6245	0.2527	1.3181	51.891	8	-0.424	2.306	0.3081
1.8	0.3229	1.1832	0.6371	0.2928	0.9553	31.971	8	-0.518	2.306	0.3081
3.6	0.2500	0.9160	0.5579	0.2527	0.9553	48.969	8	0.074	2.306	0.3081
100	0.2625	0.9618	0.5721	0.2255	1.0472	53.285	8	-0.032	2.306	0.3081

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.95445	0.929	0.46306	-0.2352
Bartlett's Test indicates equal variances (p = 0.84)	2.05791	15.0863		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.22328	0.77187	0.03846	0.07141	0.74584	5, 42

N/A

< 50% control w/ sgp. PD.

Reviewed by: PD

BASELINE TEST INFO -- SHEEPSHEAD 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0021C
Effective Date: 2/1/09

TEST ORGANISM INFO

Species: *Cyprinodon variegatus*

Source: CBI Stock Cultures: ✓

Other: _____

Hatch Date/Time: 9/14/09 1630 (start)

Hatch Date/Time: 9/15/09 1630 (end)

Acclimation: Water: ASW 20 g/kg salinity ✓

Other: _____

Temp. (°C): 25

Feeding Prior to Test: *Artemia ad libitum* 2X/day

Feeding During Test: *Artemia* 0.1 g/rep days 0-2 (2X/day) 0.15 g/rep days 3-6

Arrival Date: (non-CBI) N/A

TEST DESIGN

Test Chamber: 1000 ml Tri-pour beaker ✓

Other _____

Solution Vol: 750 ml ✓

Other _____

Illumination: 16:8 L:D 10-20 uE/m^2/s

Number of Replicates/Concentration: 4

Initial Number of Fish/Replicate: 10

TEST SET UP (Day 0)

Set Up Date: 9/15/09

Set Up By: PB

Time Water Added: 1140

Time Animals Added: 1200

NOTES

Peer Review by PB/GB Date 9/28/09

Test I.D. OMEGA903 -CCV

WATER QUALITY DATA – *Cyprinodon variegatus* 7-DAY TEST COASTAL BIOANALYSTS, INC FORM ETF0022B EFFECTIVE DATE: 6/30/07

Para-meter	Treat-ment	Day 0 Initial	Day 1 Final	Day 1 Initial	Day 2 Final	Day 2 Initial	Day 3 Final	Day 3 Initial	Day 4 Final	Day 4 Initial	Day 5 Final	Day 5 Initial	Day 6 Final	Day 6 Initial	Day 7 Final
T	C	26	25	26	25	25	25	26	25	26	25	25	25	25	25
E	1	26	25	24	25	25	25	26	25	26	25	25	25	25	25
M	2	26	25	26	25	25	25	26	25	26	25	25	25	25	25
P	3	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	4	24	25	26	25	25	25	26	25	26	25	25	25	25	25
(°C)	5	26	25	26	25	25	25	25	25	26	25	25	25	25	25
	C	7.82	7.64	7.67	7.66	7.69	7.73	7.76	7.78	7.73	7.41	7.77	7.51	7.78	7.43
pH	1	7.82	7.65	7.67	7.66	7.70	7.85	7.76	7.50	7.73	7.72	7.77	7.63	7.79	7.29
	2	7.82	7.62	7.67	7.66	7.70	7.86	7.74	7.77	7.73	7.62	7.79	7.64	7.79	7.70
(S.U.)	3	7.82	7.65	7.67	7.67	7.70	7.88	7.75	7.65	7.73	7.62	7.83	7.59	7.85	7.77
	4	7.82	7.66	7.67	7.67	7.70	7.90	7.79	7.82	7.73	7.32	7.83	7.65	7.82	7.46
	5	7.46	7.66	7.39	7.69	7.22	7.91	7.78	7.67	7.37	7.26	7.63	7.86	7.58	7.73
	C	7.3	6.2	7.0	6.9	7.1	7.1	7.3	6.8	7.1	7.1	7.2	7.1	7.1	7.0
D.O.	1	7.3	6.2	7.0	6.8	7.1	7.1	7.2	6.3	7.1	7.1	7.2	7.1	7.0	6.4
	2	7.2	6.1	7.0	6.8	7.1	7.0	7.0	6.8	7.2	7.0	7.2	7.1	6.8	6.9
(mg/l)	3	7.2	6.1	7.0	6.6	7.1	6.9	7.0	6.4	7.1	7.0	7.2	7.1	6.6	6.8
	4	7.2	6.0	6.2	6.0	7.0	6.8	6.9	7.1	7.2	6.8	7.1	7.1	6.4	6.8
	5	6.2	5.9	5.3	5.4	4.4*	6.7	5.0	5.7	5.6	6.5	7.0	7.0	6.1	6.7
	C		20		20		21		20		20		20		20
S	1		20		20		21		20		20		20		20
A	2		20		20		21		20		20		20		20
L	3		20		20		21		20		20		20		20
I	4		20		20		21		20		20		20		20
N	5		20		20		21		20		20		19		20
(g/kg)															
Replicate:		A	B	C	D	B	A	C	C	B	C	D	A	B	C
Initials:		PB	PB	PB	PB	PB	PB	PB	[illegible]	PB	CA	CB	DB	CB	CB

*D.O. Dropped to 1.8. aeration started 1600 PB

TEST I.D. OmEG0903 -CCV

SURVIVAL DATA – SHEEPSHEAD MINNOW 7 DAY TEST | Coastal Bioanalysts, Inc | Form ETF0023G | Effective Date: 10/31/08

Treatment[1]	Rep Ltr	Number of Live Fish							Fish Dry Weight Data (mg)[2]			Notes
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Pan #	Tot. Wt.	Tare Wt.	
C CONTROL	A	10	10	10	10	10	10	10	49	19.83	9.44	
	B	10	10	10	10	10	10	10	50	16.36	7.50	
	C	10	10	10	10	10	10	10	51	19.85	9.11	
	D	10	10	10	10	10	10	10	52	20.38	9.52	
1 C: 0.50‰ V: 12	A	10	10	10	10	10	10	10	53	17.76	7.52	
	B	10	10	10	10	10	10	10	54	18.88	7.07	
	C	10	10	10	10	10	10	10	55	19.21	7.88	
	D	10	10	10	10	10	10	10	56	20.39	7.82	
2 C: 0.90‰ V: 21.6	A	10	10	10	10	10	10	10	57	17.59	7.12	
	B	10	10	10	10	10	10	10	58	18.80	8.65	
	C	10	10	10	10	10	10	10	59	21.15	9.37	
	D	10	10	10	10	10	10	10	60	17.97	8.01	
3 C: 1.80‰ V: 43.2	A	10	10	10	10	10	10	10	61	18.46	8.05	
	B	10	10	10	10	10	10	10	62	17.03	8.12	
	C	10	10	10	10	10	10	10	63	18.66	7.98	
	D	10	10	10	10	10	10	10	64	19.35	9.44	
4 C: 3.60‰ V: 86.4	A	10	10	10	10	10	10	10	65	19.10	8.37	
	B	10	10	10	10	10	10	10	66	18.08	8.02	
	C	10	10	10	10	10	10	10	67	19.38	8.23	
	D	10	10	10	10	10	10	9	68	16.64	8.03	
5 C: 7.20‰ V: 2400	A	10	10	10	10	10	10	10	69	16.93	7.36	
	B	10	10	10	10	10	10	10	20	17.41	7.06	
	C	10	10	10	10	10	10	10	71	19.55	7.21	
	D	10	10	10	10	10	10	10	72	16.45	7.93	
Renewal/Count Time:		1120	1315	1150	1355	1125	1020	1215	Tare Wt: Date: 9/20 Calib. Chk (10.00 mg[4]): 10.01 Init: CG			
Initials:		PB	PB	PP	PB	CG	CG	MB	Tot. Wt: Date: 9/25 Calib. Chk (10.00 mg[4]): 10.00 Init: RA			

[1] C = Concentration; V = Volume (ml) sample added to total volume of 2400 ml for preparation of solutions. [2] See printout of statistical analyses for biomass weights by replicate.
[3] Time of final count = test end time. [4] True value ± estimated uncertainty of calibration weight (NIST traceable annual certification) = 10.00 ± 0.05 mg

Test ID OMEGA903

-CCV

Larval Fish Growth and Survival Test-7 Day Survival

Start Date:	9/15/2009 12:00	Test ID:	OMEG0903CV	Sample ID:	OUTFALL 001
End Date:	9/22/2009 12:15	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	CV-Cyprinodon variegatus
Comments:					

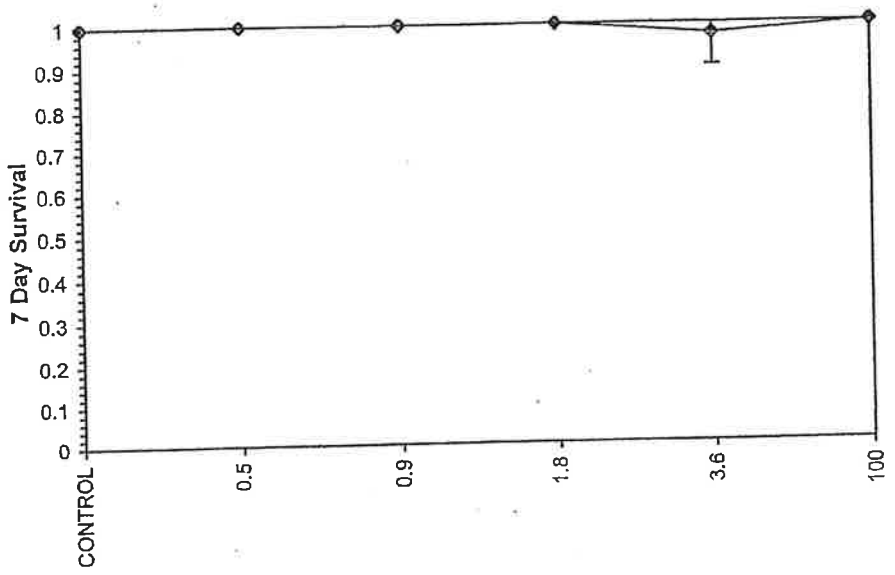
Conc-%	1	2	3	4
CONTROL	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
0.9	1.0000	1.0000	1.0000	1.0000
1.8	1.0000	1.0000	1.0000	1.0000
3.6	1.0000	1.0000	1.0000	0.9000
100	1.0000	1.0000	1.0000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
CONTROL	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4		
0.5	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00
0.9	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00
1.8	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00
3.6	0.9750	0.9750	1.3713	1.2490	1.4120	5.942	4	16.00	10.00
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.46508	0.884	-3.0206	13.9892
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	100	>100		1

Dose-Response Plot



Reviewed by: _____

Larval Fish Growth and Survival Test-7 Day Biomass

Start Date:	9/15/2009 12:00	Test ID:	OMEG0903CV	Sample ID:	OUTFALL 001
End Date:	9/22/2009 12:15	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	CV-Cyprinodon variegatus
Comments:					

Conc-%	1	2	3	4
CONTROL	1.0390	0.8860	1.0740	1.0810
0.5	1.0190	1.1810	1.1330	1.2520
0.9	1.0470	1.0150	1.1780	0.9960
1.8	1.0410	0.8910	1.0680	0.9710
3.6	1.0730	1.0060	1.1150	0.8610
100	0.9570	1.0350	1.2340	0.8520

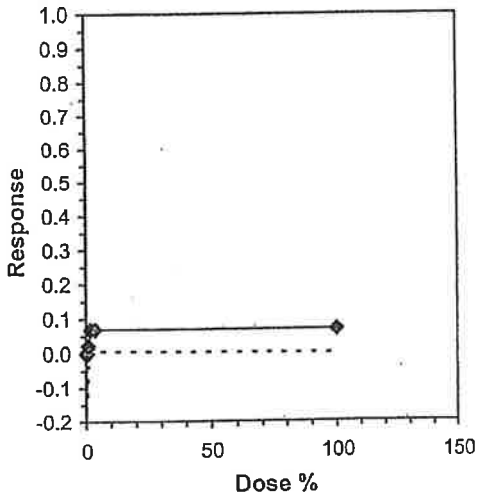
			Transform: Untransformed					1-Tailed			Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
CONTROL	1.0200	1.0000	1.0200	0.8860	1.0810	8.941	4				1.0831	1.0000
0.5	1.1463	1.1238	1.1463	1.0190	1.2520	8.542	4	-1.661	2.410	0.1832	1.0831	1.0000
0.9	1.0590	1.0382	1.0590	0.9960	1.1780	7.750	4	-0.513	2.410	0.1832	1.0590	0.9777
1.8	0.9928	0.9733	0.9928	0.8910	1.0680	7.978	4	0.358	2.410	0.1832	1.0087	0.9313
3.6	1.0138	0.9939	1.0138	0.8610	1.1150	10.978	4	0.082	2.410	0.1832	1.0087	0.9313
100	1.0195	0.9995	1.0195	0.8520	1.2340	15.838	4	0.007	2.410	0.1832	1.0087	0.9313

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.97698	0.884	0.032	-0.2074
Bartlett's Test indicates equal variances (p = 0.84)	2.0883	15.0863		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	0.18324	0.17964	0.0123	0.01156	0.41252	5, 18

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05	1.4370			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



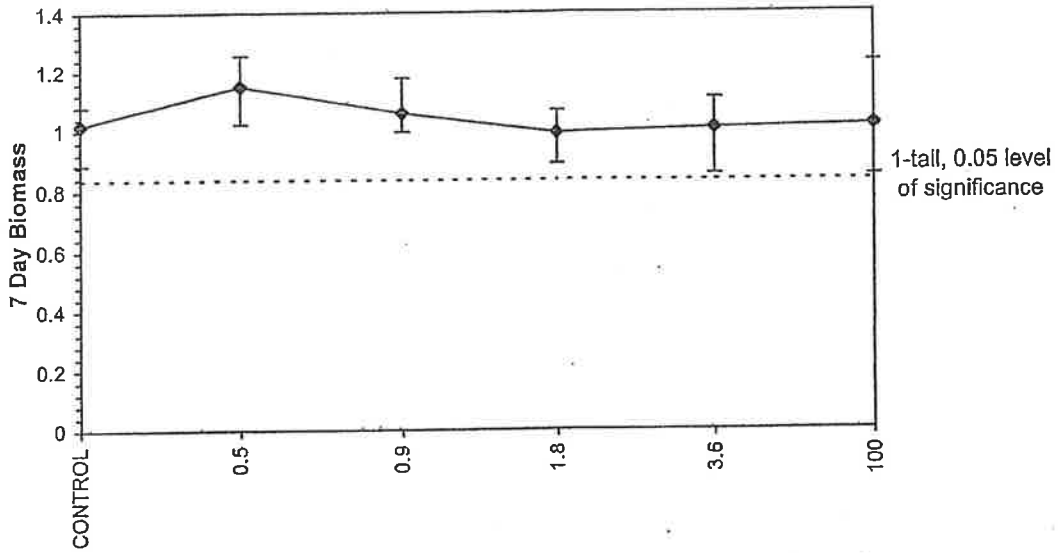
ToxCalc v5.0.23

Reviewed by:

Larval Fish Growth and Survival Test-7 Day Biomass

Start Date:	9/15/2009 12:00	Test ID:	OMEG0903CV	Sample ID:	OUTFALL 001
End Date:	9/22/2009 12:15	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	CV-Cyprinodon variegatus
Comments:					

Dose-Response Plot



Reviewed by: [signature]

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS

FORM ETF2032D

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

INITIAL SAMPLE CHARACTERIZATION[1]					NOTES:
Sample Bottle[2]	A-1	B-1	C-1		
Tot. Res. Chlorine (mg/l)	<Q.L.	<Q.L.	<Q.L.		
Hardness (mg/l $CaCO_3$)	2840	2980	2920		
Alkalinity (mg/l $CaCO_3$)	99	106	110		
NH_3-N (mg/l)	2.7	3.2	3.3		
Color/Appearance[3]	CY	CY	CY		
Obvious Odor?	NO	NO	NO		
Date/Time	9/15/09 1045	9/17/09 1000	9/18 1015		
Initials	PB	PB	bja		

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1	A-2	B-1	C-1	C-2	C-3	C-4	B-2
Prep Temperature (°C)	26	26	25	25	26	25	26	25
Initial Salinity (g/kg)	16	16	16	16	16	16	16	16
Adjusted Salinity (g/kg)	20	20	20	20	20	19	19	20
DO (mg/l) After Warm/Sal	6.2	4.4	5.5	4.3	4.4	2.3	1.1	3.4
Aeration Time (min)	—	—	—	—	—	—	4.5	3.0
Adjusted D.O.	—	—	—	—	—	—	5.2	6.2
Final pH (S.U.)	7.31	7.23	7.35	7.08	7.13	7.44	7.42	7.26
Tot. Res. Chlorine (mg/l)[4]	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Sample Filtered (60 um)?	NO	NO	NO	NO	NO	NO	NO	NO
Date/Time	9/15/09 1135	9/16/09 1120	9/17/09 1305	9/18 1130	9/19 1320	9/20 1115	9/21 1045	9/17/09 1420
Initials	PB	PB	PB	PB	PB	CA	CA	PB

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	D	D	D	D	D	D	D	F
Temperature (°C)	25	25	25	25	25	25	25	26
Salinity (g/kg)	20	20	21	21	20	20	20	20
D.O. (mg/l)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
pH (S.U.)	7.74	7.83	7.95	7.99	7.83	7.99	7.86	7.71
Date/Time	9/15/09 0845	9/16/09 0830	9/17/09 0745	9/18/09 0815	9/19/09 1340	9/20 1030	9/21 0845	9/17/09 1300
Initials	PB	PB	PB	PB	PB	CB	CA	PB

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (SI-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by CB / PB Date 9/21/09

PROJECT I.D. OMEG0903
(First 8 characters of Laboratory Sample ID)

Coastal Bioanalysts
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only): O M E G 0 9 0 3 - A
Project ID: A A A A Y Y N N Spl: A

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz 453-4211	
NPDES PERMIT NO: VA0003867			OUTFALL # OR LOCATION
SAMPLE CHLORINATED?	SAMPLE DECHLORINATED?	IF CHLORINE PRESENT UPON ARRIVAL AT LAB; DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	
TESTS REQUESTED:	SPECIES OR EPA METH #: M. bahia	ACUTE ☐	CHRONIC ☑
	SPECIES OR EPA METH #: C. virginicus	ACUTE ☐	CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME: 9/14/09 07:00	SAMPLE END DATE & TIME: 9/15/09 07:00	AUTOSAMPLER TEMP. (°C): 4.1°C	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION:	NUMBER SUBSAMPLES: 96	VOL (ml) SUBSAMPLES: 200	TIME INCREMENT: 15 min
	SET VOLUME SUBSAMPLE:	SET VOLUME FLOW: 175,500 gal/hr	TOTAL VOLUME:

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
31.2	7.4	4.0		7:15 9/15/09	TMS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Ted Schultz Technical Supervisor (PRINTED NAME/AFFILIATION SAMPLER/ANALYST) — Ted Schultz (SIGNATURE) — 9/15/09 (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
J R Hall	9/15/09	10:15	P Blasco

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY ✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE ✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 3 ARRIVED ON ICE? YES ✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Coastal Bioanalysis
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only): 0 m E G 0 9 0 3 - B
A A A A Y Y N N (Project ID) | A (Spl)

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz 453-4211	
NPDES PERMIT NO: VA0003867		OUTFALL # OR LOCATION: 001	
SAMPLE CHLORINATED? No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	
TESTS REQUESTED:	SPECIES OR EPA METH #: m. bahia	ACUTE ☐	CHRONIC ☑
	SPECIES OR EPA METH #: C. variegatus	ACUTE ☐	CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME: 9/16/09 07:15		SAMPLE END DATE & TIME: 9/17/09 07:15		AUTOSAMPLER TEMP. (°C): 4.0	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES: 96	VOL (ml) SUBSAMPLES: 200		TIME INCREMENT: 15 min	
	SET VOLUME SUBSAMPLE:	SET VOLUME FLOW: 175,500 gal/day		TOTAL VOLUME:	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
33.4	7.06	4.0		9/17/09 08:00	VAS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Ted Schultz Technical Supervisor (PRINTED NAME/AFFILIATION SAMPLER/ANALYST) Ted Schultz (SIGNATURE) 9/17/09 (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
	9/17/09	10:45	
	9/17/09		

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 2 ARRIVED ON ICE? YES✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Coastal Bioanalysts
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only): D M E G D Q 0 3 - C

A A A A Y Y N N (Project ID) A (Spl)

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz 453-4211	
NPDES PERMIT NO: VA 0003867			OUTFALL # OR LOCATION: 001
SAMPLE CHLORINATED? No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	
TESTS REQUESTED:	SPECIES OR EPA METH #: M. bahia	ACUTE ☑	CHRONIC ☐
	SPECIES OR EPA METH #: C. variegatus	ACUTE ☑	CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME: 9/17/09 07:15		SAMPLE END DATE & TIME: 9/18/09 0715		AUTOSAMPLER TEMP. (°C): 4.0	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION:	NUMBER SUBSAMPLES: 96	VOL (ml) SUBSAMPLES: 200ml		TIME INCREMENT: 15 min	
	SET VOLUME SUBSAMPLE:	SET VOLUME FLOW: 175,500 gal/day		TOTAL VOLUME:	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
33.1	7.2	3.8		9/18/09 0730	TAS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
[signature]	9/18/09	10:10	Beverly Jordan Anderson

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY X OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE X OTHER____

SAMPLE ARRIVAL TEMP: (°C) 5 ARRIVED ON ICE? YES X NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Client: Omega Protein
Project ID: OMEG0904
Client Sample ID: Outfall 002
Permit No: VA0003867
Sample Period: 9/23/09

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	Prepared By:
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A

*Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable. Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits.

Acute Test Biological Summary Data		Sample Concentration (%)					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	55

Test Information Species-Method	Start Date/Time End Date/Time	Organism Source	Hatch/Harvest Date/Time	Acclimation Temp.	Acclimation Water	Test Aerated?
M. bahia EPA 2007.0	9/23/09 1520 9/25/09 1530	CBI Stock	9/17/09 1100 9/18/09 0800	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	Acute Test	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	4	N/A
Use Temperature (°C)	26	26
Arrival Salinity (g/kg)	3	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	7.07	7.70
Dissolved Oxygen (mg/l)	7.0	7.3
Total Hardness (mg/l as $CaCO_3$)	344	N/A
Alkalinity (mg/l as $CaCO_3$)	323	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	18.2	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	**Collection Date/Time**	**Date(s)/Time(s) 1st Used in Tests**	**Date(s)/Time(s) Used in Renewals**	**Sample Adjustments**
OMEG0904-A	9/23/09 0800	9/23/09 1520	N/A	Salt added

EPA Labortatory ID: VA01116

Client: Omega Protein
Project ID: OMEG0904
Client Sample ID: Outfall 002
Permit No: VA0003867
Sample Period: 9/23/09

Coastal Bioanalysts, Inc.

Acute Test Water Quality (Mean/Std. Dev.)						
Test:	*M. bahia* 2007.0					
% Conc:	Cont.	6.25	12.5	25.0	50.0	100
Temp. (°C)	26 0.5	26 0.5	26 0.5	26 0.5	26 0.5	26 0.5
D.O. (mg/l)	6.2 1.0	6.1 1.0	6.0 1.0	5.8 1.2	5.6 1.3	5.4 1.6
pH (S.U.)	7.59 0.07	7.58 0.07	7.55 0.08	7.52 0.16	7.61 0.38	7.74 0.60

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures					
Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0	RTT	100	526	481-576	Yes
(9/8/09-9/10/09)	CC	100	610	504-716	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

9/23/09
Date

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean ± 2 standard deviations).

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

N/A: Not applicable. **N/D:** Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

EPA Labortatory ID: VA01116

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	5	55
	5-B	10	10	6	
Initials:		PB	PB	CB	
Count Time:		1520	0915	1530	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	26	26	25
	1	26	26	25
	2	26	26	25
	3	26	26	25
	4	26	26	25
	5	26	26	25
pH (S.U.)	C	7.65	7.60	7.51
	1	7.58	7.65	7.51
	2	7.50	7.65	7.51
	3	7.35	7.67	7.55
	4	7.18	7.76	7.90
	5	7.07	7.95	8.21
D.O. (mg/l)	C	7.3	5.5	5.7
	1	7.3	5.4	5.6
	2	7.2	5.3	5.5
	3	7.2	5.2	5.0
	4	7.1	5.1	4.6
	5	7.1	5.1	4.8
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	B
Initials:		PB	PB	CB
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 9/17/09 1100

Date /time end: 9/18/09 0800

Acclimation: Water: ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: *Artemia* nauplii
ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m^2/s

Test chamber size: ✓ 400 ml ___ 250 ml

Solution volume: ___ 200 ml _____ ml

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 9/23/09

Time water added: 1510

Time mysids added: 1520

Set up by (initials): PB

NOTES:

Peer Rev. by: CB / PB Date: 9/25/09

TEST I.D. 0mEL0904 -AMB

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032D

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

INITIAL SAMPLE CHARACTERIZATION[1]					NOTES:
Sample Bottle[2]	A-1				
Tot. Res. Chlorine (mg/l)	<QL				
Hardness (mg/l $CaCO_3$)	34.4				
Alkalinity (mg/l $CaCO_3$)	323				
NH_3-N (mg/l)	18.2				
Color/Appearance[3]	C				
Obvious Odor?	ND				
Date/Time	9/23 1550				
Initials	KH				

SAMPLE PREPARATION MEASUREMENTS (100% concentration)									
Sample Bottle[2]	A-1								
Prep Temperature (°C)	24								
Initial Salinity (g/kg)	3								
Adjusted Salinity (g/kg)	20								
DO (mg/l) After Warm/Sal	7.0								
Aeration Time (min)	—								
Adjusted D.O.	—								
Final pH (S.U.)	7.07								
Tot. Res. Chlorine (mg/l)[4]	N.A								
Sample Filtered (60 um)?	NO								
Date/Time	9/23 1500								
Initials	PB								

DILUTION WATER CHARACTERISTICS									
Vat Number/Letter	B								
Temperature (°C)	24								
Salinity (g/kg)	20								
D.O. (mg/l)	7.3								
pH (S.U.)	7.70								
Date/Time	9/23 1505								
Initials	PB								

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by LO/PB Date 9/26/09

PROJECT I.D. DMELB404
(First 8 characters of Laboratory Sample ID)

Coastal Bioanalysts
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011D Rev. 10/10/07)

Lab Sample ID (Lab Use Only)

O	m	E	G	0	9	4	4	-	A
A	A	A	A	Y	Y	N	N		A

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz	
NPDES PERMIT NO: VA 0003867		OUTFALL # OR LOCATION: 002	
SAMPLE CHLORINATED? No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	
TESTS REQUESTED:	SPECIES OR EPA METH #: M. bahia	ACUTE ☑	CHRONIC ☐
	SPECIES OR EPA METH #: C. variegatus ?	ACUTE ☐	CHRONIC ☐
OTHER TESTS: see attached.			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

COMPOSITE START DATE & TIME: 9/22/09 08:00		COMPOSITE END DATE & TIME: 9/23/09 08:00	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION:	NUMBER SUBSAMPLES:	VOL (ml) SUBSAMPLES:	TIME INCREMENT:
	SET VOLUME SUBSAMPLE: 50ml	SET VOLUME FLOW: 1 sample / 1000 gal	TOTAL VOLUME: 152,000 gal

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
25.1	6.68	4		9/23/09 8:10	DNS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Theodore Schultz / Technical Supervisor — Theodore A Schultz — 9/23/09

(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
JR Dell	9/23/09	10:40	D. Bria

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY ✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE ✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 4 ARRIVED ON ICE? YES ✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of October, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
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18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29	13:05	<2	9.42	<0.1	16.3	7.87	19	13:15	<2	9.25	<0.1	16.2	7.93	19
30														
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Landcaster*

Name of Sampler: Ted Schultz

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of October, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
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19														
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21														
22														
23														
24														
25														
26														
27														
28														
29	12:40	<2	9.50	<0.1	16.5	7.98	19	12:50	2.2	9.30	<0.1	16.5	8.21	19
30														
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Tideland*

Name of Sampler: Ted Schultz

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of October, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
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21														
22														
23														
24														
25														
26														
27														
28														
29	12:40	<2	9.50	<0.1	16.5	7.98	19	12:50	2.2	9.30	<0.1	16.5	8.21	19
30														
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Tideland*

Name of Sampler: Ted Schultz

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of October, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
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18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29	13:05	<2	9.42	<0.1	16.3	7.87	19	13:15	<2	9.25	<0.1	16.2	7.93	19
30														
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Landcaster*

Name of Sampler: Ted Schultz

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 10/1/09 To 10/4/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Signature of Principal Officer or Authorized Agent / Date 11/9/2009

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 10/5/09 To 10/11/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 11/12/09
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 10/1/09 To 10/31/09

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE* (check as appropriate)
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore A Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Willie E. Lewis 11/4/2009
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 10/19/09 To 10/25/07

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

William E. Kinnelly 11/9/2009
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 10/26/09 To 10/31/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 11/2/2009
Signature of Principal Officer or Authorized Agent / Date

OMEGA PROTEIN
Healthy Products for a Healthy World®

Theodore Schultz
Regulatory Compliance

RECEIVED
OCT 0 5 2009
PRO

Patrick L. Bishop
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060-6296

October 2, 2009

Re: VA0003867 Part I.C.1.a Biological Monitoring (Outfall 001)

Dear Patrick;

Please find enclosed two copies (2) of test report for Outfall 001 for 2nd Quarter WET testing.

Should any additional information be needed, please contact me via email or phone.

Sincerely,

Ted Schultz
Technical Supervisor
tschultz@omegaproteininc.com

Attachments

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	Prepared By:
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23071 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results

Species-Test Method	48-h LC50	95% C.L.	$T.U._{Ac}$	NOAEC
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A
C. variegatus EPA 2004.0	>100	N/A	<1.00	N/A

Chronic Test Results

Species-Test Method	Endpoint	NOEC	LOEC	ChrV	PMSD	$T.U._C$	IC25	48-h LC50	LC50 95% C.L.	$T.U._{Ac}$
M. bahia EPA 1007.0	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
	Biomass	100	>100	>100	23	1.00	>100	N/A	N/A	N/A
	Fecundity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
C. variegatus EPA 1004.0	Survival	100	>100	>100	N/A	1.00	N/A	>100	N/A	<1.00
	Biomass	100	>100	>100	18	1.00	>100	N/A	N/A	N/A

Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable. Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits.

Acute Test Biological Summary Data

Species-Method	Endpoint	Sample Concentration (%) Control	3.50	7.00	14.0	28.0	100
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	100
C. variegatus EPA 2004.0	Survival (%):	100	100	100	100	100	100

Chronic Test Biological Summary Data

Species-Method	Endpoint	Sample Concentration (%) Control	0.50	0.90	1.80	3.60	100
M. bahia EPA 1007.0	Survival (%):	95	93	100	95	93	98
	Biomass (mg)	0.313	0.305	0.367	0.370	0.337	0.392
	Fecundity (%):	27	45	33	32	25	26
C. variegatus EPA 1004.0	Survival (%):	100	100	100	100	98	100
	Biomass (mg):	1.020	1.146	1.059	0.993	1.014	1.020

EPA Laboratory ID: VA01116

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

Coastal Bioanalysts, Inc.

Test Information Species-Method	Start Date/Time End Date/Time	Organism Source	Hatch/Harvest Date/Time	Acclimation Temp.	Acclimation Water	Test Aerated?
M. bahia EPA 2007.0	9/17/09 1500 9/19/09 1450	CBI Stock	9/15/09 1100 9/16/09 1100	25° C	HWM ASW 20 g/kg sal.	Yes
C. variegatus EPA 2004.0	9/17/09 1510 9/19/09 1500	CBI Stock	9/5/09 1200 9/6/09 1200	25° C	HWM ASW 20 g/kg sal.	Yes
M. bahia EPA 1007.0	9/15/09 1215 9/22/09 1255	CBI Stock	9/7/09 1000 9/8/09 1000	25° C	HWM ASW 20 g/kg sal.	Yes
C. variegatus EPA 1004.0	9/15/09 1200 9/22/09 1215	CBI Stock	9/14/09 1630 9/15/09 1030	25° C	HWM ASW 20 g/kg sal.	Yes

Sample/Dilution Water Data	Acute Test		Chronic Test			
		Dilution*	Sample		Dilution Water*	
Water Quality Parameter (Units)	Sample	Water	Mean	Std. Dev.	Mean	Std. Dev.
Arrival Temperature (°C)	2	N/A	3	1.5	N/A	N/A
Use Temperature (°C)	25	26	26	0.5	25	0
Arrival Salinity (g/kg)	16	N/A	16	0	N/A	N/A
Use Salinity (g/kg)	20	20	20	0.5	20	0.5
pH (S.U.)	7.26	7.71	7.28	0.14	7.88	0.09
Dissolved Oxygen (mg/l)	6.2	7.3	4.7	2.0	7.3	0
Total Hardness (mg/l as $CaCO_3$)	2980	N/A	2913	70	N/A	N/A
Alkalinity (mg/l as $CaCO_3$)	106	N/A	102	3.8	N/A	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A	<Q.L.	0	N/A	N/A
Ammonia (mg/l NH_3-N)	2.7	N/A	3.1	0.3	N/A	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	Collection Date/Time	Date(s)/Time(s) 1st Used in Tests	Date(s)/Time(s) Used in Renewals	Sample Adjustments
OMEG0903-A	9/15/09 0700	9/15/09 1200, 1215	9/16/09 1120, 1140	Salt Added
OMEG0903-B	9/17/09 0715	9/17/09 1315, 1330 9/17/09 1500, 1510*	N/A	Salt Added Aerated 0-3 min
OMEG0903-C	9/18/09 0715	9/18/09 1150, 1200	9/19/09 1355, 1405 9/20/09 1125, 1140 9/21/09 1020, 1030	Salt Added, Aerated 0-4.5 min

*Acute tests

Acute Test Water Quality (Mean/Std. Dev.)												
Test:	*M. bahia* 2007.0						*C. variegatus* 2004.0					
% Conc:	Cont.	3.50	7.00	14.0	28.0	100	Cont.	3.50	7.00	14.0	28.0	100
Temp. (°C)	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0
D.O. (mg/l)	7.2 0.1	7.1 0.1	7.1 0.1	7.1 0.1	7.0 0.1	6.7 0.6	7.1 0.2	7.1 0.1	7.1 0.1	7.0 0.1	7.0 0.1	6.6 0.6
pH (S.U.)	7.91 0.07	7.89 0.09	7.91 0.11	7.93 0.13	7.93 0.16	7.90 0.33	7.92 0.08	7.89 0.10	7.91 0.13	7.80 0.28	7.93 0.18	7.88 0.31

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

Coastal Bioanalysts, Inc.

Chronic Test Water Quality (Mean/Std. Dev.)

Test:	*M. bahia* 1007.0						*C. variegatus* 1004.0					
% Conc:	Cont.	0.50	0.90	1.80	3.60	100	Cont.	0.50	0.90	1.80	3.60	100
Temp. (°C)	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5	25 0.5
D.O. (mg/l)	7.0 0.3	6.9 0.4	6.9 0.4	6.8 0.4	6.8 0.5	6.1 0.8	7.0 0.3	7.0 0.3	6.9 0.3	6.9 0.3	6.8 0.4	6.0 0.8
pH (S.U.)	7.77 0.13	7.75 0.08	7.76 0.10	7.74 0.18	7.78 0.10	7.69 0.18	7.70 0.08	7.72 0.09	7.72 0.08	7.73 0.09	7.71 0.16	7.58 0.22
Salinity (g/kg)	20 0.4	20 0.4	20 0.4	20 0.4	20 0.4	20 0.6	20 0.4	20 0.4	20 0.4	20 0.4	20 0.4	20 0.6

Acute Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures

Species-Method (Ref. Test Date)	Data Source	% Control Survival	48-h LC50	95% C.L./A.L. for LC50	RTT in Control?
M. bahia 2007.0	RTT	100	526	481-576	Yes
(9/8/09-9/10/09)	CC	100	610	504-716	
C. variegatus 2004.0	RTT	100	1112	997-1239	Yes
(9/8/09-9/10/09)	CC	99	1094	925-1263	

Chronic Test QA/QC Reference Toxicant: KCl Units: mg/l Test Organism Source: CBI Stock Cultures

Species-Method (Ref. Test Date)	Data Source	% Survival		Biomass (mg)					RTT in Control?
		Cont	NOEC	Cont.	NOEC	PMSD	IC25	IC25 A.L.	
M. bahia 1007.0	RTT	90	250	0.36	250	29	349	N/A	Yes
(9/8/09-9/15/09)	CC	93	250	0.32	250	22	484	341-628	
C. variegatus 1004.0	RTT	98	1000	1.45	500	12	1069	N/A	Yes
(9/8/09-9/15/09)	CC	99	1000	1.26	500	14	954	611-1298	

Note: RTT = Reference Toxicant Test, CC = Control Chart, Cont. = Control group. Based on control chart data (n>62) fecundity (Method 1007.0) is not a sensitive endpoint for KCl toxicity and hence not reported; fecundity data available upon request.

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

9/29/09
Date

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

EPA Laboratory ID: VA01116

Client: Omega Protein
Project ID: OMEG0903
Client Sample ID: Outfall 001
Permit No: VA0003867
Sample Period: 9/15/09 to 9/18/09

Coastal Bioanalysts, Inc.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean ± 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

MYSIDOPSIS BAHIA STATIC ACUTE WET TEST
48-H TEST (AMB) FORM ETF1011F

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
3.5	1-A	10	10	10	100
	1-B	10	10	10	
7.0	2-A	10	10	10	100
	2-B	10	10	10	
14.0	3-A	10	10	10	100
	3-B	10	10	10	
28.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	PB	PB	
Count Time:		1500	0900	1450	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.83	7.97	7.93
	1	7.80	7.98	7.88
	2	7.78	7.99	7.95
	3	7.78	8.04	7.97
	4	7.74	8.05	7.99
	5	7.52	8.07	8.10
D.O. (mg/l)	C	7.3	7.1	7.1
	1	7.2	7.1	7.0
	2	7.2	7.1	7.1
	3	7.1	7.0	7.1
	4	7.0	7.0	7.1
	5	6.00	7.1	7.1
Salinity (g/kg)	C	20		21
	1			
	2			
	3			
	4			
	5	20		21
Replicate Measured:		A	B	A
Initials:		PB	PB	bjm
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other: _____

Harvest: Date/time start: 9/15/09 1100

Date /time end: 9/16/09 1100

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml ___ 250 ml

Solution volume: ✓ 200 ml _____ ml

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 9/17/09

Time water added: 1445

Time mysids added: 1500

Set up by (initials): PB

NOTES:
① D.O. dropped to 7.1
Test Aerated @ 1600. PB

Peer Rev. by: PB Date: 9/28/09

TEST I.D. BMEG0903 -AMB

CYPRINODON VARIEGATUS STATIC ACUTE WET TEST
48-H TEST (ACV)
FORM ETF1021E

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
3.50	1-A	10	10	10	100
	1-B	10	10	10	
7.00	2-A	10	10	10	100
	2-B	10	10	10	
14.0	3-A	10	10	10	100
	3-B	10	10	10	
28.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	10	100
	5-B	10	10	10	
Initials:		PB	PB	PB	
Count Time:		1510	0905	1500	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.83	7.99	7.94
	1	7.80	8.00	7.88
	2	7.78	8.03	7.93
	3	7.78	8.09	7.54
	4	7.74	8.10	7.96
	5	7.52	8.10	8.01
D.O. (mg/l)	C	7.3	7.0	7.0
	1	7.2	7.0	7.1
	2	7.2	7.1	7.1
	3	7.1	6.9	6.9
	4	7.0	6.9	7.1
	5	6.0①	6.9	7.0
Salinity (g/kg)	C	20		21
	1			
	2			
	3			
	4			
	5	20		21
Replicate Measured:		A	B	A
Initials:		PB	PB	bja
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Cyprinodon variegatus*

Source: CBI stock cultures ✓

Other: _____

Hatch: Date/time start: 9/5/09 1200

Date /time end: 9/6/09 1200

Acclimation: Water: ASW, 20 g/kg salinity ✓

Other _____

Temperature (°C): 25

Feeding: Prior to test: *Artemia ad libitum*
During test: Not fed

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml _____ ml

Solution volume: ✓ 400 ml _____ ml

Number of replicates/treatment: 2

Initial number of fish/replicate: 10

Set up: Date (Day 0): 9/7/09

Time water added: 1445

Time fish added: 1510

Set up by (initials): PB

NOTES:
① D.O. dropped to 4.0 Aeration started at ② 1600. PB

Peer Rev. by: PB/ Date: 9/28/09 TEST I.D. UMEGN0903 -ACV

BASELINE TEST INFO – MYSID 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0011D
Effective Date: 2/1/09

TEST ORGANISM INFO

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI Stock Cultures: ✓

Other: _____

Harvest Date/Time: From 9/7/09 1000

To 9/8/09 1000

Acclimation: Water: ASW 20 g/kg salinity ✓

Other: _____

Temp. (°C): 25

Feeding Prior to Test: *Artemia ad libitum* 2X/day

Feeding During Test: *Artemia* ca. 75/mysid, 2X/day

Arrival Date: N/A
(non-CBI)

TEST DESIGN

Test Chamber: 1000 ml Tri-pour Beaker ✓

Other _____

Solution Vol: 200 ml ✓

Other _____

Illumination: 16:8 L:D 10-20 uE/m^2/s

Number of Replicates/Concentration: 8

Initial Number of Mysids/Replicate: 5

TEST SET UP (Day 0)

Set Up Date: 9/15/09

Set Up By: PB

Time Water Added: 1140

Time Animals Added: 1215

NOTES

Peer Review by PB/LB Date 9/28/09

Test I.D. OMEC0903 -CMB

WATER QUALITY DATA – *Mysidopsis bahia* 7-DAY TEST COASTAL BIOANALYSTS, INC FORM ETF0012B · EFFECTIVE DATE: 6/30/07

Parameter	Treatment	Day 0 Initial	Day 1 Final	Day 1 Initial	Day 2 Final	Day 2 Initial	Day 3 Final	Day 3 Initial	Day 4 Final	Day 4 Initial	Day 5 Final	Day 5 Initial	Day 6 Final	Day 6 Initial	Day 7 Final
T	C	26	25	26	25	25	25	26	25	26	25	25	25	25	25
E	1	26	25	26	25	25	25	26	25	26	25	25	25	25	25
M	2	26	25	26	25	25	25	26	25	26	25	25	25	25	25
P	3	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	4	26	25	26	25	25	25	26	25	26	25	25	25	25	25
(°C)	5	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	C	7.86	7.67	7.70	7.68	7.72	7.87	7.79	7.80	7.71	7.84	7.77	7.43	7.89	7.94
pH	1	7.86	7.62	7.70	7.68	7.72	7.87	7.78	7.62	7.71	7.77	7.80	7.76	7.83	7.83
	2	7.86	7.62	7.70	7.69	7.72	7.87	7.79	7.68	7.71	7.80	7.85	7.61	7.88	7.91
(S.U.)	3	7.86	7.60	7.70	7.69	7.72	7.88	7.81	7.68	7.72	7.83	7.81	7.68	7.90	7.94
	4	7.86	7.61	7.70	7.69	7.72	7.90	7.76	7.86	7.72	7.81	7.81	7.68	7.83	7.92
	5	7.49	7.78	7.51	7.73	7.40	7.96	7.76	7.88	7.39	7.78	7.67	7.74	7.67	7.83
	C	7.3	6.4	7.0	6.3	7.0	7.1	7.3	7.0	7.1	7.1	7.2	7.1	7.1	7.1
D.O.	1	7.3	6.4	7.0	6.2	7.0	7.1	7.2	6.0	7.1	7.1	7.2	7.1	7.0	7.1
	2	7.2	6.4	7.0	6.0	7.0	7.0	7.1	6.4	7.1	7.0	7.2	7.1	6.8	7.0
(mg/l)	3	7.2	6.3	7.0	6.0	7.0	6.9	6.6	6.4	7.1	6.9	7.2	7.1	6.6	7.0
	4	7.2	6.3	6.2	5.7	7.0	6.8	6.9	7.2	7.1	6.8	7.1	7.1	6.3	6.5
	5	6.2	6.1	5.3	5.3	4.3①	6.7	5.2	6.8	5.6	6.6	7.0	7.1	6.8	6.8
S	C		20		20		21		20		20		20		20
A	1		20		20		21		20		20		20		20
L	2		20		20		21		20		20		20		20
I	3		20		20		21		20		20		20		20
N	4		20		20		21		20		20		20		20
(g/kg)	5		20		20		21		20		20		19		20
Replicate:		A	B	C	H	B	G	6	E	B	C	D	A	B	E
Initials:		PB	PB	PB	PB	PB	PB	PB	bjp	PB	CA	CA	CA	CA	CA

① DO dropped to 2.8 Aeration started at 1600. PB

TEST I.D. OMEGA903 -CMB

SURVIVAL DATA – MYSID 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0013C
Effective Date: 11/27/07

Treatment	Rep Ltr	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Final % Live
C	A	5	5	5	5	4	4	4	95
	B	5	5	5	5	5	5	5	
	C	5	5	5	5	5	5	5	
	D	5	5	5	5	5	5	5	
	E	5	5	5	5	5	5	5	
	F	5	5	5	5	5	5	4	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	5	
1 0.50% % Conc. 6 Vol. Spl.*	A	5	5	5	5	5	5	4①	93
	B	5	5	5	5	5	5	5	
	C	5	5	5	5	5	5	5	
	D	5	5	5	5	5	5	4	
	E	5	5	5	5	5	5	5	
	F	5	5	5	5	5	5	5	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	4	
2 0.90% % Conc. 10.8 Vol. Spl.*	A	5	5	5	5	5	5	5	100
	B	5	5	5	5	5	5	5	
	C	5	5	5	5	5	5	5	
	D	5	5	5	5	5	5	5	
	E	5	5	5	5	5	5	5	
	F	5	5	5	5	5	5	5	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	5	
3 1.80% % Conc. 21.6 Vol. Spl.*	A	5	5	5	5	4	4	4	95
	B	5	5	5	5	4	4	4	
	C	5	5	5	5	5	5	5	
	D	5	5	5	5	5	5	5	
	E	5	5	5	5	5	5	5	
	F	5	5	5	5	5	5	5	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	5	
4 3.60% % Conc. 43.2 Vol. Spl.*	A	5	5	5	5	5	4①	4	93
	B	5	5	5	5	5	5	5	
	C	5	5	5	5	4	5	4	
	D	5	5	5	5	4	4	4	
	E	5	5	5	5	5	5	5	
	F	5	5	5	5	5	5	5	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	5	
5 10.0% % Conc. 120D Vol. Spl.*	A	5	5	5	5	5	5	5	98
	B	5	5	5	5	5	4	4	
	C	5	5	5	5	5	5	5	
	D	5	5	5	5	5	5	5	
	E	5	5	5	5	5	5	5	
	F	5	5	5	5	5	5	5	
	G	5	5	5	5	5	5	5	
	H	5	5	5	5	5	5	5	
Renewal/Count Time:		1140	1330	1500	1405	1140	1030	1255#	
Initials:		PB	PB	PB	PB	CB	CB	CB	

① Stuck to side of beaker

*Volume sample added to total volume of 1200 ml for preparation of dilutions. # Time of final count = test end time.

Test I.D. CMEC0903 -CMB

FECUNDITY/GROWTH DATA – MYSID 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0014G
Effective Date: 10/31/08

Treatment	Rep Ltr	Females w/eggs	Females No eggs	Males	Imma-ture	Pan No.	Total[1] Wt (mg)	Tare Wt (mg)
C	A	1	11	1		1	8.22	6.24
	B		111	11		2	7.92	6.58
	C		11	111		3	7.27	5.90
	D		111	11		4	8.39	6.98
	E	11	1	11		5	8.97	7.20
	F	1	11	1		6	8.68	2.22
	G	111	11			7	9.44	7.21
	H	1	111	1		8	8.41	6.94
1	A		11	11		9	9.65	8.41
	B	1	1	111		10	8.59	7.26
	C	11	1	11		11	8.67	7.12
0.57Δ	D	11	1	1		12	8.66	7.10
% Conc.	E	1	11	11		13	8.73	6.71
	F	11	11	1		14	7.69	5.98
	G	11	1	11		15	8.27	6.43
	H	1	111			16	8.48	7.55
2	A		1111	1		17	7.26	5.45
	B	1	111	1		18	7.08	5.64
	C	1	111	1		19	7.65	5.93
0.90Δ	D	11	11	1		20	9.20	7.14
% Conc.	E	1	11	11		21	8.69	6.82
	F	1	11	11		22	10.21	8.15
	G	1111		1		23	10.10	7.61
	H		11	111		24	8.04	6.21
3	A	1	11	1		25	8.53	4.88
	B	11	11			26	8.89	7.28
	C	1	111	1		27	10.22	7.98
1.80	D	1	1	111		28	9.64	8.04
% Conc.	E		1	1111		29	11.28	9.36
	F		111	11		30	9.05	7.45
	G	11	1	11		31	8.68	6.64
	H	1	11	11		32	10.92	8.82
4	A	1	1	11		33	9.37	7.86
	B	11	11	1		34	10.23	8.32
	C	11	1	1		35	8.78	7.27
3.60	D		1111			36	9.56	8.01
% Conc.	E		111	11		37	9.64	8.08
	F		1111	1		38	8.07	6.64
	G		1	1111		39	10.79	8.64
	H	1	11	11		40	9.03	7.18
5	A	11	11	1		41	10.53	8.28
	B		1	111		42	10.18	8.46
	C		111			43	10.23	8.55
7.20	D		111	11		44	10.84	8.41
% Conc.	E	1	111	1		45	9.21	7.74
	F		111	11		46	10.43	8.50
	G	111	1	1		47	10.21	7.94
	H	121	11			48	10.50	8.32

[1]See printout of statistical analyses for biomass weights by replicate.
[2] True value ± estimated uncertainty of calibration weight (NIST traceable annual certification) = 10.00 ± 0.05 mg

TARE WT: DATE: 9/24 INITIALS: LB CALIB. CHECK (10.00 mg[2]): 10.01
TOTAL WT: DATE: 9/25 INITIALS: PB CALIB. CHECK (10.00 mg[2]): 10.00
SEXED BY: CB

Test I.D. DMEC0901 -CMB

Mysid Survival, Growth and Fecundity Test-7 Day Survival

Start Date:	9/15/2009 12:15	Test ID:	OMEG0903MB
End Date:	9/22/2009 12:55	Lab ID:	CBI
Sample Date:		Protocol:	EPAM 94-EPA Marine
Comments:			

Sample ID:	OUTFALL 003							
Sample Type:	WW							
Test Species:	MY-Mysidopsis bahia							

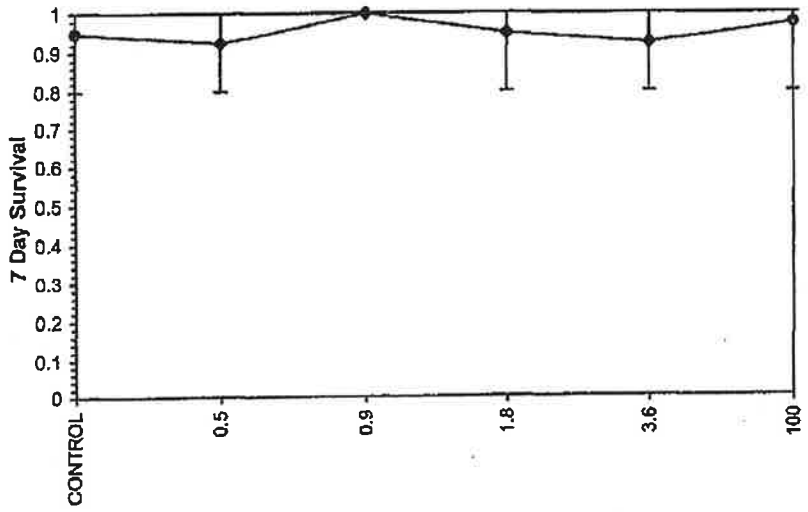
Conc-%	1	2	3	4	5	6	7	8
CONTROL	0.8000	1.0000	1.0000	1.0000	1.0000	0.8000	1.0000	1.0000
0.5	0.8000	1.0000	1.0000	0.8000	1.0000	1.0000	1.0000	0.8000
0.9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1.8	0.8000	0.8000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3.6	0.8000	1.0000	0.8000	0.8000	1.0000	1.0000	1.0000	1.0000
100	1.0000	0.8000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
CONTROL	0.9500	1.0000	1.2857	1.1071	1.3453	8.574	8		
0.5	0.9250	0.9737	1.2560	1.1071	1.3453	9.813	8	64.00	46.00
0.9	1.0000	1.0526	1.3453	1.3453	1.3453	0.000	8	76.00	46.00
1.8	0.9500	1.0000	1.2857	1.1071	1.3453	8.574	8	68.00	46.00
3.6	0.9250	0.9737	1.2560	1.1071	1.3453	9.813	8	64.00	46.00
100	0.9750	1.0263	1.3155	1.1071	1.3453	6.400	8	72.00	46.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.77039	0.929	-1.0511	-0.4334
Equality of variance cannot be confirmed				

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	100	>100		1

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: [illegible]

Mysid Survival, Growth and Fecundity Test-Biomass

Start Date:	9/15/2009 12:15	Test ID: OMEG0903MB	Sample ID: OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID: CBI	Sample Type: WW
Sample Date:		Protocol: EPAM 94-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments:			

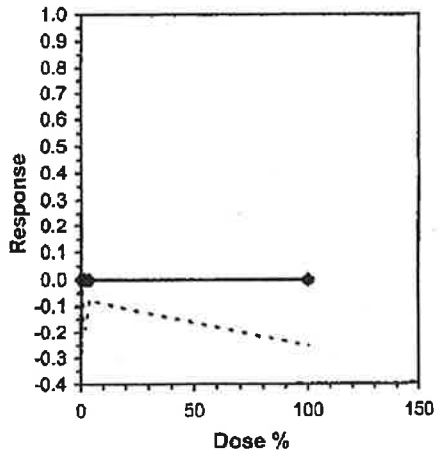
Conc-%	1	2	3	4	5	6	7	8
CONTROL	0.2920	0.2680	0.2740	0.2820	0.3540	0.2920	0.4460	0.2940
0.5	0.2480	0.2660	0.3100	0.3120	0.4040	0.3420	0.3680	0.1860
0.9	0.2620	0.2880	0.3440	0.4080	0.3740	0.4120	0.4980	0.3460
1.8	0.3300	0.3220	0.4480	0.3200	0.3840	0.3200	0.4160	0.4200
3.6	0.3020	0.3820	0.3020	0.3100	0.3120	0.2860	0.4300	0.3700
100	0.4500	0.3440	0.3360	0.4460	0.2940	0.3860	0.4540	0.4260

			Transform: Untransformed						1-Tailed		Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
CONTROL	0.3128	1.0000	0.3128	0.2680	0.4460	19.154	8				0.3471	1.0000
0.5	0.3045	0.9736	0.3045	0.1860	0.4040	22.935	8	0.265	2.306	0.0718	0.3471	1.0000
0.9	0.3665	1.1719	0.3665	0.2620	0.4980	20.405	8	-1.727	2.306	0.0718	0.3471	1.0000
1.8	0.3700	1.1831	0.3700	0.3200	0.4480	14.374	8	-1.839	2.306	0.0718	0.3471	1.0000
3.6	0.3368	1.0767	0.3368	0.2860	0.4300	15.128	8	-0.771	2.306	0.0718	0.3471	1.0000
100	0.3920	1.2534	0.3920	0.2940	0.4540	15.654	8	-2.546	2.306	0.0718	0.3471	1.0000

Auxiliary Tests					Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)					0.96204		0.929		0.30422	-0.3412
Bartlett's Test indicates equal variances (p = 0.92)					1.48277		15.0863			
Hypothesis Test (1-tail, 0.05)	**NOEC**	**LOEC**	**ChV**	**TU**	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Dunnett's Test	100	>100		1	0.07176	0.22946	0.00963	0.00387	0.04645	5, 42

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

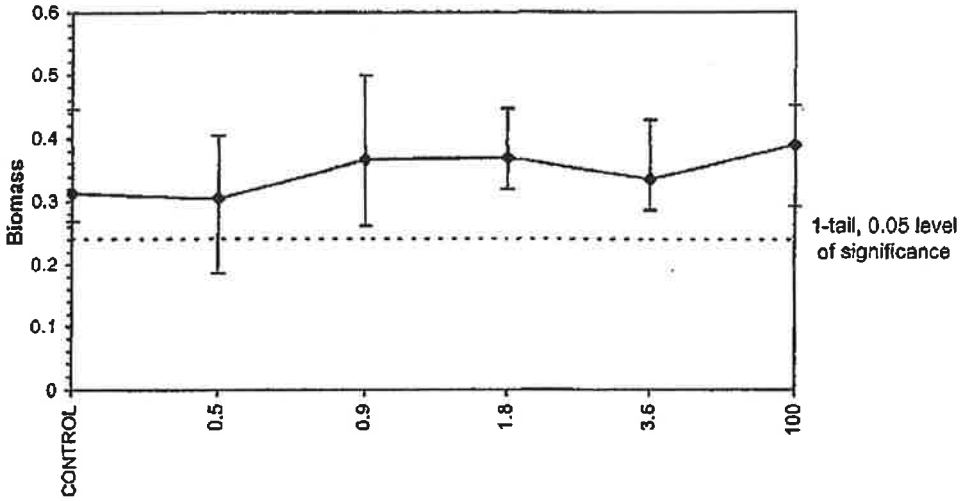


ToxCalc v5.0.23

Reviewed by: PD

Mysid Survival, Growth and Fecundity Test-Biomass					
Start Date:	9/15/2009 12:15	Test ID:	OMEG0903MB	Sample ID:	OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	MY-Mysidopsis bahia
Comments:					

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: fp

Mysid Survival, Growth and Fecundity Test-Fecundity

Start Date:	9/15/2009 12:15	Test ID: OMEG0903MB	Sample ID: OUTFALL 003
End Date:	9/22/2009 12:55	Lab ID: CBI	Sample Type: WW
Sample Date:		Protocol: EPAM 94-EPA Marine	Test Species: MY-Mysidopsis bahia
Comments:			

Conc-%	1	2	3	4	5	6	7	8
CONTROL	0.3333	0.0000	0.0000	0.0000	0.6667	0.3333	0.6000	0.2500
0.5	0.0000	0.5000	0.6667	0.6667	0.3333	0.5000	0.6667	0.2500
0.9	0.0000	0.2500	0.2500	0.5000	0.3333	0.3333	1.0000	0.0000
1.8	0.3333	0.5000	0.2500	0.5000	0.0000	0.0000	0.6667	0.3333
3.6	0.5000	0.5000	0.6667	0.0000	0.0000	0.0000	0.0000	0.3333
100	0.5000	0.0000	0.0000	0.0000	0.2500	0.0000	0.7500	0.6000

			Transform: Arcsin Square Root						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
CONTROL	0.2729	1.0000	0.5679	0.2928	0.9553	44.737	8			
0.5	0.4479	1.6412	0.7421	0.3614	0.9553	30.061	8	-1.304	2.306	0.3081
0.9	0.3333	1.2214	0.6245	0.2527	1.3181	51.891	8	-0.424	2.306	0.3081
1.8	0.3229	1.1832	0.6371	0.2928	0.9553	31.971	8	-0.518	2.306	0.3081
3.6	0.2500	0.9160	0.5579	0.2527	0.9553	48.969	8	0.074	2.306	0.3081
100	0.2625	0.9618	0.5721	0.2255	1.0472	53.285	8	-0.032	2.306	0.3081

Auxiliary Tests					Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)					0.95445		0.929		0.46306	-0.2352
Bartlett's Test indicates equal variances (p = 0.84)					2.05791		15.0863			
Hypothesis Test (1-tail, 0.05)	**NOEC**	**LOEC**	**ChV**	**TU**	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Dunnett's Test	100	>100		1	0.22328	0.77187	0.03846	0.07141	0.74584	5, 42

N/A

< 50% control w/ eggs. PD

Reviewed by: [illegible]

BASELINE TEST INFO – SHEEPSHEAD 7 DAY TEST

Coastal Bioanalysts, Inc
Form ETF0021C
Effective Date: 2/1/09

TEST ORGANISM INFO

Species: *Cyprinodon variegatus*

Source: CBI Stock Cultures: ✓

Other: _____

Hatch Date/Time: 9/14/09 1630 (start)

Hatch Date/Time: 9/15/09 1030 (end)

Acclimation: Water: ASW 20 g/kg salinity ✓

Other: _____

Temp. (°C): 25

Feeding Prior to Test: *Artemia ad libitum* 2X/day

Feeding During Test: *Artemia* 0.1 g/rep days 0-2 (2X/day) 0.15 g/rep days 3-6

Arrival Date: (non-CBI) NA

TEST DESIGN

Test Chamber: 1000 ml Tri-pour beaker ✓

Other _____

Solution Vol: 750 ml ✓

Other _____

Illumination: 16:8 L:D 10-20 uE/m²/s

Number of Replicates/Concentration: 4

Initial Number of Fish/Replicate: 10

TEST SET UP (Day 0)

Set Up Date: 9/15/09

Set Up By: PB

Time Water Added: 1140

Time Animals Added: 1200

NOTES

Peer Review by PB/DR Date 9/28/09

Test I.D. OMEGA903 -CCV

WATER QUALITY DATA – *Cyprinodon variegatus* 7-DAY TEST COASTAL BIOANALYSTS, INC FORM ETF0022B EFFECTIVE DATE: 6/30/07

Para-meter	Treat-ment	Day 0 Initial	Day 1 Final	Day 1 Initial	Day 2 Final	Day 2 Initial	Day 3 Final	Day 3 Initial	Day 4 Final	Day 4 Initial	Day 5 Final	Day 5 Initial	Day 6 Final	Day 6 Initial	Day 7 Final
T	C	26	25	26	25	25	25	26	25	26	25	25	25	25	25
E	1	26	25	26	25	25	25	26	25	26	25	25	25	25	25
M	2	26	25	26	25	25	25	26	25	26	25	25	25	25	25
P	3	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	4	26	25	26	25	25	25	26	25	26	25	25	25	25	25
(°C)	5	26	25	26	25	25	25	26	25	26	25	25	25	25	25
	C	7.82	7.64	7.67	7.66	7.69	7.73	7.76	7.78	7.73	7.61	7.77	7.51	7.78	7.63
pH	1	7.82	7.65	7.67	7.66	7.70	7.85	7.76	7.80	7.73	7.72	7.77	7.63	7.79	7.79
	2	7.82	7.62	7.67	7.66	7.70	7.86	7.78	7.77	7.73	7.62	7.79	7.64	7.79	7.70
(S.U.)	3	7.82	7.65	7.67	7.67	7.70	7.88	7.75	7.65	7.73	7.62	7.83	7.59	7.85	7.77
	4	7.82	7.66	7.67	7.67	7.70	7.90	7.79	7.82	7.73	7.32	7.83	7.65	7.87	7.76
	5	7.46	7.66	7.39	7.69	7.22	7.91	7.78	7.67	7.37	7.76	7.67	7.86	7.58	7.73
	C	7.3	6.2	7.0	6.9	7.1	7.1	7.3	6.8	7.1	7.1	7.2	7.1	7.1	7.0
D.O.	1	7.3	6.2	7.0	6.9	7.1	7.1	7.2	6.3	7.1	7.1	7.2	7.1	7.0	6.9
	2	7.2	6.1	7.0	6.8	7.1	7.0	7.0	6.8	7.2	7.0	7.2	7.1	6.8	6.9
(mg/l)	3	7.2	6.1	7.0	6.6	7.1	6.9	7.0	6.4	7.1	7.0	7.2	7.1	6.6	6.6
	4	7.2	6.0	6.2	6.0	7.0	6.8	6.9	7.1	7.2	6.8	7.1	7.1	6.4	6.8
	5	6.2	5.9	5.3	5.4	4.4	6.7	5.0	5.7	5.6	6.5	7.0	7.0	6.1	6.7
S	C		20		20		21		20		20		20		20
A	1		20		20		21		20		20		20		20
L	2		20		20		21		20		20		20		20
I	3		20		20		21		20		20		20		20
N	4		20		20		21		20		20		20		20
(g/kg)	5		20		20		21		20		20		19		20
Replicate:		A	B	C	D	E	A	C	C	B	C	D	A	B	C
Initials:		PB	PB	PB	PB	PB	PB	PB	PB	PB	CA	CB	CB	CB	CB

D.O. Dropped to 1.8. Aeration started 1600 PB

TEST I.D. DmEGG903 -CCV

SURVIVAL DATA – SHEEPSHEAD MINNOW 7 DAY TEST | Coastal Bioanalysts, Inc | Form ETF0023G | Effective Date: 10/31/08

Treatment[1]	Rep Ltr	Number of Live Fish							Fish Dry Weight Data (mg)[2]			Notes
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Pan #	Tot. Wt.	Tare Wt.	
C CONTROL	A	10	10	10	10	10	10	10	44	19.83	9.44	
	B	10	10	10	10	10	10	10	50	16.36	7.50	
	C	10	10	10	10	10	10	10	51	19.85	9.11	
	D	10	10	10	10	10	10	10	52	20.38	9.52	
1 C: 0.50‰	A	10	10	10	10	10	10	10	53	17.76	7.52	
	B	10	10	10	10	10	10	10	54	18.88	7.02	
	C	10	10	10	10	10	10	10	55	19.21	7.88	
V: 12	D	10	10	10	10	10	10	10	56	20.39	7.82	
2 C: 0.90‰	A	10	10	10	10	10	10	10	57	17.59	7.12	
	B	10	10	10	10	10	10	10	58	18.80	8.65	
	C	10	10	10	10	10	10	10	59	21.15	9.32	
V: 21.6	D	10	10	10	10	10	10	10	60	17.97	8.01	
3 C: 1.80‰	A	10	10	10	10	10	10	10	61	18.46	8.05	
	B	10	10	10	10	10	10	10	62	17.03	8.12	
	C	10	10	10	10	10	10	10	63	18.66	7.48	
V: 43.2	D	10	10	10	10	10	10	10	64	19.35	9.64	
4 C: 3.60‰	A	10	10	10	10	10	10	10	65	19.10	8.37	
	B	10	10	10	10	10	10	10	66	18.08	8.02	
	C	10	10	10	10	10	10	10	67	19.38	8.23	
V: 86.4	D	10	10	10	10	10	10	9	68	16.64	8.03	
5 C: 7.20‰	A	10	10	10	10	10	10	10	69	16.93	7.36	
	B	10	10	10	10	10	10	10	20	17.41	7.06	
	C	10	10	10	10	10	10	10	71	19.55	7.21	
V: 2400	D	10	10	10	10	10	10	10	72	16.45	7.93	
Renewal/Count Time:		1120	1315	1150	1355	1125	1024	1215[3]	Tare Wt: Date: 4/20 Calib. Chk (10.00 mg[4]): 10.41 Init: CA			
Initials:		PB	PB	PB	PB	CA	CB	AB	Tot. Wt: Date: 4/25 Calib. Chk (10.00 mg[4]): 10.00 Init: PB			

[1] C = Concentration; V = Volume (ml) sample added to total volume of 2400 ml for preparation of solutions. [2] See printout of statistical analyses for biomass weights by replicate.
[3] Time of final count = test end time. [4] True value ± estimated uncertainty of calibration weight (NIST traceable annual certification) = 10.00 ± 0.05 mg

Test ID DMEG0903 -CCV

Larval Fish Growth and Survival Test-7 Day Survival

Start Date:	9/15/2009 12:00	Test ID:	OMEG0903CV	Sample ID:	OUTFALL 001
End Date:	9/22/2009 12:15	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	CV-Cyprinodon variegatus

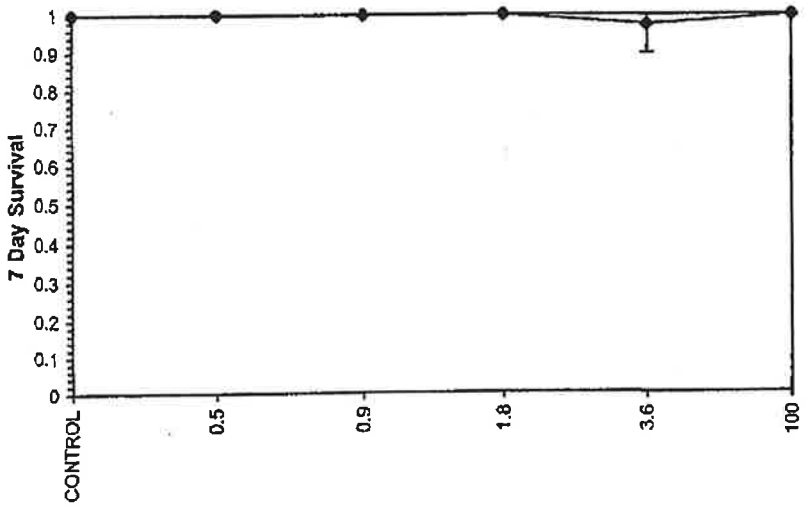
Comments:

Conc-%	1	2	3	4
CONTROL	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000
0.9	1.0000	1.0000	1.0000	1.0000
1.8	1.0000	1.0000	1.0000	1.0000
3.6	1.0000	1.0000	1.0000	0.9000
100	1.0000	1.0000	1.0000	1.0000

			Transform: Arcsin Square Root					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
CONTROL	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4		
0.5	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00
0.9	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00
1.8	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00
3.6	0.9750	0.9750	1.3713	1.2490	1.4120	5.942	4	16.00	10.00
100	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	4	18.00	10.00

Auxiliary Tests				Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)				0.46508	0.884	-3.0206	13.9892
Equality of variance cannot be confirmed							
Hypothesis Test (1-tail, 0.05)	**NOEC**	**LOEC**	**ChV**	**TU**			
Steel's Many-One Rank Test	100	>100		1			

Dose-Response Plot



Reviewed by: _____

Larval Fish Growth and Survival Test-7 Day Biomass

Start Date:	9/15/2009 12:00	Test ID:	OMEG0903CV	Sample ID:	OUTFALL 001
End Date:	9/22/2009 12:15	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	CV-Cyprinodon variegatus

Comments:

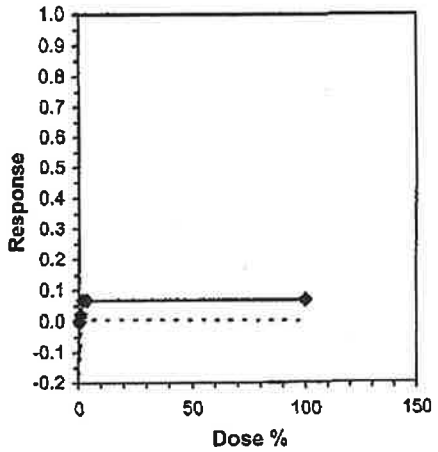
Conc-%	1	2	3	4
CONTROL	1.0390	0.8860	1.0740	1.0810
0.5	1.0190	1.1810	1.1330	1.2520
0.9	1.0470	1.0150	1.1780	0.9960
1.8	1.0410	0.8910	1.0680	0.9710
3.6	1.0730	1.0060	1.1150	0.8610
100	0.9570	1.0350	1.2340	0.8520

			Transform: Untransformed					1-Tailed			Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
CONTROL	1.0200	1.0000	1.0200	0.8860	1.0810	8.941	4				1.0831	1.0000
0.5	1.1463	1.1238	1.1463	1.0190	1.2520	8.542	4	-1.661	2.410	0.1832	1.0831	1.0000
0.9	1.0590	1.0382	1.0590	0.9960	1.1780	7.750	4	-0.513	2.410	0.1832	1.0590	0.9777
1.8	0.9928	0.9733	0.9928	0.8910	1.0680	7.978	4	0.358	2.410	0.1832	1.0087	0.9313
3.6	1.0138	0.9939	1.0138	0.8610	1.1150	10.978	4	0.082	2.410	0.1832	1.0087	0.9313
100	1.0195	0.9995	1.0195	0.8520	1.2340	15.838	4	0.007	2.410	0.1832	1.0087	0.9313

Auxiliary Tests					Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)					0.97698		0.884		0.032	-0.2074
Bartlett's Test indicates equal variances (p = 0.84)					2.0883		15.0863			
Hypothesis Test (1-tail, 0.05)	**NOEC**	**LOEC**	**ChV**	**TU**	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Dunnett's Test	100	>100		1	0.18324	0.17964	0.0123	0.01156	0.41252	5, 18

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL(Exp)	Skew
IC05	1.4370			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

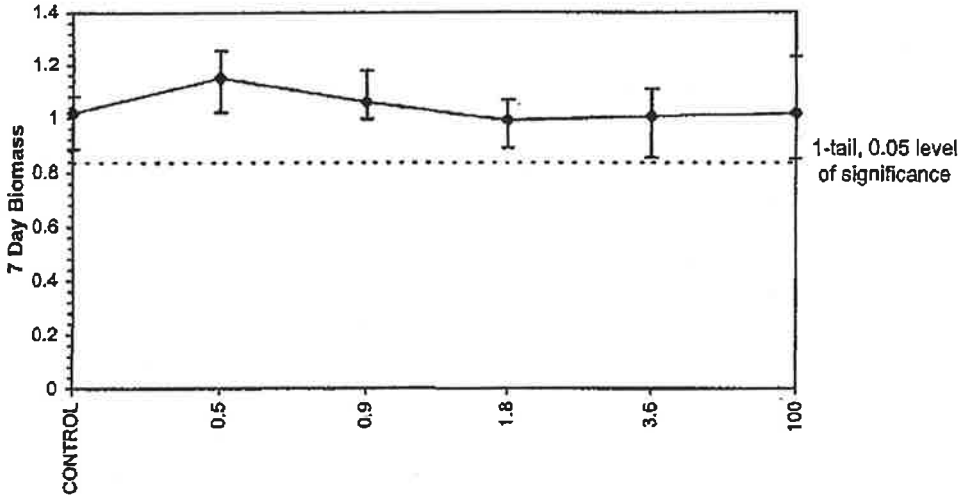


Reviewed by:

Larval Fish Growth and Survival Test-7 Day Biomass

Start Date:	9/15/2009 12:00	Test ID:	OMEG0903CV	Sample ID:	OUTFALL 001
End Date:	9/22/2009 12:15	Lab ID:	CBI	Sample Type:	WW
Sample Date:		Protocol:	EPAM 94-EPA Marine	Test Species:	CV-Cyprinodon variegatus
Comments:					

Dose-Response Plot



ToxCalc v5.0.23

Reviewed by: M

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS FORM ETF2032D

COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

INITIAL SAMPLE CHARACTERIZATION[1]					NOTES:
Sample Bottle[2]	A-1	B-1	C-1		
Tot. Res. Chlorine (mg/l)	<Q.L.	<Q.L.	<QL		
Hardness (mg/l $CaCO_3$)	2840	2980	2920		
Alkalinity (mg/l $CaCO_3$)	99	100	100		
NH_3-N (mg/l)	2.7	3.2	3.3		
Color/Appearance[3]	CY	CY	CY		
Obvious Odor?	NO	NO	NO		
Date/Time	9/15/09 1045	9/17/09 1500	9/18 1015		
Initials	PB	PB	bja		

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1	A-2	B-1	C-1	C-2	C-3	C-4	B-2
Prep Temperature (°C)	26	26	25	25	26	25	26	25
Initial Salinity (g/kg)	16	16	16	16	16	16	16	16
Adjusted Salinity (g/kg)	20	20	20	20	20	19	19	20
DO (mg/l) After Warm/Sal	6.2	4.4	5.5	4.3	4.4	2.3	1.1	3.4
Aeration Time (min)	—	—	—	—	—	—	4.5	3.0
Adjusted D.O.	—	—	—	—	—	—	5.2	6.2
Final pH (S.U.)	7.31	7.23	7.35	7.08	7.13	7.44	7.42	7.26
Tot. Res. Chlorine (mg/l)[4]	N.D.	N.D.	N.D.	N.D	N.D	N.D	N.D.	N.D.
Sample Filtered (60 um)?	NO	NO	NO	NO	NO	NO	NO	NO
Date/Time	9/15/09 1135	9/16/09 1120	9/17/09 1305	9/18 1135	9/19 1320	9/24 1115	9/21 1045	9/17/09 1420
Initials	PB	PB	PB	PB	PB	CA	CA	PB

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	D	D	D	D	D	D	D	F
Temperature (°C)	25	25	25	25	25	25	25	26
Salinity (g/kg)	20	20	21	21	20	20	20	20
D.O. (mg/l)	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
pH (S.U.)	7.74	7.83	7.95	7.99	7.83	7.99	7.86	7.71
Date/Time	9/15/09 0845	9/16/09 0830	9/17/09 0745	9/18/09 0815	9/19/09 1300	9/24 1045	9/22/09 0815	9/17/09 1300
Initials	PB	PB	PB	PB	PB	CA	CA	PB

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by CB / RB Date 9/21/09 PROJECT I.D. OMEG0903
(First 8 characters of Laboratory Sample ID)

Coastal Bioanalysts
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only)

O	M	E	G	0	9	0	3	-	A
A	A	A	A	Y	Y	N	N		A
Project ID									Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME: Omega Protein		CONTACT & PHONE #: Ted Schultz 453-4211	
NPDES PERMIT NO: VA0003867		OUTFALL # OR LOCATION	
SAMPLE CHLORINATED?	SAMPLE DECHLORINATED?	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?	

TESTS REQUESTED:	SPECIES OR EPA METH #		
	m. bahia	ACUTE ☐	CHRONIC ☑
	C. virginica	ACUTE ☐	CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME: 9/14/09 07:00		SAMPLE END DATE & TIME: 9/15/09 07:00		AUTOSAMPLER TEMP. (°C): 4.1°C	
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES: 96	VOL (ml) SUBSAMPLES: 200		TIME INCREMENT: 15 min	
	SET VOLUME SUBSAMPLE:	SET VOLUME FLOW: 175,500 gal/hr		TOTAL VOLUME:	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
31.2	7.4	4.0		7:15 9/15/09	TMS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Ted Schultz Technical Supervisor — Ted Schultz — 9/15/09
(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
J.R. Hall	9/15/09	10:15	P Blanco

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY ✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE ✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 3 ARRIVED ON ICE? YES ✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Coastal Bioanalysts
Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/15/09)

Lab Sample ID (Lab Use Only)

0	m	E	G	0	9	0	3	-	B
A	A	A	A	Y	Y	N	N		A
Project ID									Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME	OmeGA Protein	CONTACT & PHONE #	Ted Schultz 453-4211
NPDES PERMIT NO	VA0003867	OUTFALL # OR LOCATION	001
SAMPLE CHLORINATED?	No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?

TESTS REQUESTED:	SPECIES OR EPA METH #	m.bahia	ACUTE ☐ CHRONIC ☑
	SPECIES OR EPA METH #	C.variegatus	ACUTE ☐ CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME	9/16/09 07:15	SAMPLE END DATE & TIME	9/17/09 07:15	AUTOSAMPLER TEMP. (°C)	4.0
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES 96	VOL (ml) SUBSAMPLES 200		TIME INCREMENT 15 min	
	SET VOLUME SUBSAMPLE	SET VOLUME FLOW 175,500 gal/day		TOTAL VOLUME	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
33.4	7.06	4.0		9/17/09 08:00	VHS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Ted Schultz Technical Supervisor Ted Schultz 9/17/09
(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
J.R. Hall	9/17/09	10:45	
	9/17/09		

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY ✓ OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE ✓ OTHER____

SAMPLE ARRIVAL TEMP: (°C) 2 ARRIVED ON ICE? YES ✓ NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

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6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011E Rev. 4/16/08)

Lab Sample ID (Lab Use Only)

D	M	E	G	D	9	0	3	-	C
A	A	A	A	Y	Y	N	N		A
Project ID									Spl

FACILITY INFORMATION

CLIENT/FACILITY NAME	Omega Protein	CONTACT & PHONE #	Ted Schultz 453-4211
NPDES PERMIT NO	VA 0003867	OUTFALL # OR LOCATION	001
SAMPLE CHLORINATED?	No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?

TESTS REQUESTED:	SPECIES OR EPA METH # M. bahia	ACUTE ☑	CHRONIC ☐
	SPECIES OR EPA METH # C. variegatus	ACUTE ☑	CHRONIC ☑
OTHER TESTS:			

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

SAMPLE START DATE & TIME	9/12/09 07:15	SAMPLE END DATE & TIME	9/13/09 0715	AUTOSAMPLER TEMP. (°C)	4.0
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES 96	VOL (ml) SUBSAMPLES 200ml		TIME INCREMENT 15 min	
	SET VOLUME SUBSAMPLE	SET VOLUME FLOW 175,500 gal/day		TOTAL VOLUME	

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
33.1	7.2	3.8		9/12/09 0730	JWS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

(PRINTED NAME/AFFILIATION SAMPLER/ANALYST) (SIGNATURE) (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
	9/18/09	10:10	Beverly Jones Anderson

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY X OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE X OTHER____

SAMPLE ARRIVAL TEMP: (°C) 5 ARRIVED ON ICE? YES X NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 11/1/09 To 11/8/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 12/9/2009
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 11/9/08 To 11/15/09

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE *
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

William B Purcell 12/09/2009
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 11/16/09 To 11/22/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

William E. Russell 12/09/2009
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 11/23/09 To 11/30/09

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

William E Russell 12/09/2009
Signature of Principal Officer or Authorized Agent / Date

Client: Omega Protein
Project ID: OMEG0905
Client Sample ID: Outfall 002
Permit No: VA0003867
Sample Period: 11/10/09

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	Prepared By:
Mr. Ted Schultz Regulatory Compliance Officer Omega Protein P.O. Box 175 Reedville, VA 22539	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A

*Note: Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable. Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits.

Acute Test Biological Summary Data		Sample Concentration (%)					
Species-Method	**Endpoint**	**Control**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
M. bahia EPA 2007.0	Survival (%):	100	100	100	100	100	75

Test Information Species-Method	Start Date/Time End Date/Time	Organism Source	Hatch/Harvest Date/Time	Acclimation Temp.	Acclimation Water	Test Aerated?
M. bahia EPA 2007.0	11/10/09 1615 11/12/09 1600	CBI Stock	11/4/09 1030 11/5/09 1030	25° C	HWM ASW 20 g/kg sal.	No

Sample/Dilution Water Data	Acute Test	
Water Quality Parameter (Units)	Sample	Dilution* Water
Arrival Temperature (°C)	1	N/A
Use Temperature (°C)	25	25
Arrival Salinity (g/kg)	<1	N/A
Use Salinity (g/kg)	20	20
pH (S.U.)	7.01	7.78
Dissolved Oxygen (mg/l)	7.0	7.3
Total Hardness (mg/l as $CaCO_3$)	50	N/A
Alkalinity (mg/l as $CaCO_3$)	276	N/A
Total Residual Chlorine (mg/l)	<Q.L.	N/A
Ammonia (mg/l NH_3-N)	34.2	N/A

*Dilution water = Hawaiian Marine Mix ASW made with deionized water

Sample Aging/Use/Pretreatment				
CBI Sample I.D.	**Collection Date/Time**	**Date(s)/Time(s) 1st Used in Tests**	**Date(s)/Time(s) Used in Renewals**	**Sample Adjustments**
OMEG0905-A	11/10/09 0800	11/10/09 1615	N/A	Salt added

EPA Labortatory ID: VA01116

Client: Omega Protein
Project ID: OMEG0905
Client Sample ID: Outfall 002
Permit No: VA0003867
Sample Period: 11/10/09

Coastal Bioanalysts, Inc.

Acute Test Water Quality (Mean/Std. Dev.)						
Test:	*M. bahia* 2007.0					
% Conc:	**Cont.**	**6.25**	**12.5**	**25.0**	**50.0**	**100**
Temp.	25	25	25	25	25	25
(°C)	0	0	0	0	0	0
D.O.	6.0	6.0	5.9	5.8	5.7	5.6
(mg/l)	1.2	1.2	1.3	1.4	1.5	1.6
pH	7.62	7.66	7.62	7.64	7.74	7.65
(S.U.)	0.23	0.19	0.15	0.05	0.21	0.56

Acute Test QA/QC	Reference Toxicant: KCl Units: mg/l			Test Organism Source: CBI Stock Cultures	
Species-Method (Ref. Test Date)	**Data Source**	**% Control Survival**	**48-h LC50**	**95% C.L./A.L. for LC50**	**RTT in Control?**
M. bahia 2007.0	RTT	100	544	490-700	Yes
(10/26/09-10/28/09)	CC	100	595	511-679	

Note: RTT = Reference Toxicant Test, CC = Control Chart

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory.

APPROVED:

Peter F. De Lisle, Ph.D.
Technical Director

11/23/09
Date

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean ± 2 standard deviations).

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample. Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

N/A: Not applicable. **N/D:** Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

EPA Labortatory ID: VA01116

% Effluent	I.D.	Day 0 Live	Day 1 Live	Day 2 Live	Final % Survival
Lab Control	C-A	10	10	10	100
	C-B	10	10	10	
6.25	1-A	10	10	10	100
	1-B	10	10	10	
12.5	2-A	10	10	10	100
	2-B	10	10	10	
25.0	3-A	10	10	10	100
	3-B	10	10	10	
50.0	4-A	10	10	10	100
	4-B	10	10	10	
100	5-A	10	10	7	75
	5-B	10	10	8	
Initials:		PD	PB	PB	
Count Time:		1615	0855	1600	*Test End Time

Parameter	Treatment I.D.	Day 0	Day 1	Day 2
Temp. (°C)	C	25	25	25
	1	25	25	25
	2	25	25	25
	3	25	25	25
	4	25	25	25
	5	25	25	25
pH (S.U.)	C	7.86	7.61	7.90
	1	7.83	7.68	7.96
	2	7.78	7.61	7.98
	3	7.69	7.64	7.99
	4	7.51	7.80	7.91
	5	7.61	7.90	8.03
D.O. (mg/l)	C	7.3	5.6	5.8
	1	7.3	5.6	5.0
	2	7.3	5.5	4.8
	3	7.3	5.5	4.6
	4	7.3	5.5	4.4
	5	7.3	5.4	4.2
Salinity (g/kg)	C	20		20
	1			
	2			
	3			
	4			
	5	20		20
Replicate Measured:		A	B	A
Initials:		PD	PB	PD
TRC (mg/l) in highest conc. at end of test:				NA

Species: *Mysidopsis (Americamysis) bahia*

Source: CBI stock cultures ✓

Other:

Harvest: Date/time start: 11/4/09 1030

Date /time end: 11/5/09 1030

Acclimation: **Water:** ASW 20 g/kg salinity ✓

Other

Temperature (°C): 25

Feeding: **Prior to test:** *Artemia ad libitum*
During test: *Artemia* nauplii ca. 100 /mysid/day

Illumination: 16L:8D 10-20 uE/m²/s

Test chamber size: ✓ 400 ml ___ 250 ml

Solution volume: ✓ 200 ml _____ ml

Number of replicates/treatment: 2

Initial number of mysids/replicate: 10

Set up: Date (Day 0): 11/10/09

Time water added: 1550

Time mysids added: 1615

Set up by (initials): PD

NOTES:

Peer Rev. by: CB Date: 11/20/09 TEST I.D. OMEB 0905 -AMB

EFFLUENT SAMPLE & DILUTION WATER CHARACTERISTICS
SALTWATER TESTS
FORM ETF2032D
COASTAL BIOANALYSTS, INC
EFFECTIVE DATE: 2/1/09

INITIAL SAMPLE CHARACTERIZATION[1]					NOTES:
Sample Bottle[2]	A-1				
Tot. Res. Chlorine (mg/l)	<QL				
Hardness (mg/l $CaCO_3$)	50				
Alkalinity (mg/l $CaCO_3$)	22 L.				
NH_3-N (mg/l)	34.2				
Color/Appearance[3]	C				
Obvious Odor?	NO				
Date/Time	11/10 1120				
Initials	[illegible]				

SAMPLE PREPARATION MEASUREMENTS (100% concentration)								
Sample Bottle[2]	A-1							
Prep Temperature (°C)	25							
Initial Salinity (g/kg)	<1							
Adjusted Salinity (g/kg)	20							
DO (mg/l) After Warm/Sal	7.0							
Aeration Time (min)	—							
Adjusted D.O.	—							
Final pH (S.U.)	7.81							
Tot. Res. Chlorine (mg/l)[4]	N.D.							
Sample Filtered (60 um)?	No							
Date/Time	11/10 1530							
Initials	PD							

DILUTION WATER CHARACTERISTICS								
Vat Number/Letter	C							
Temperature (°C)	25							
Salinity (g/kg)	20							
D.O. (mg/l)	7.3							
pH (S.U.)	7.78							
Date/Time	11/10 1530							
Initials	PD							

[1]Q.L. = Quantification Limit, N.D. = Not Determined/Measured, NA = Not Applicable
[2]Ninth character of Laboratory Sample I.D. (on chain of custody form) and bottle number in collection series (e.g. bottle "A-2" is sample bottle number 2 from "A" collection). Together with project ID below constitutes entire sample bottle ID.
[3]C-Clear, O-Opaque, T-Turbid, S-Solids (Sl-Slight, M-Moderate, H-Heavy), Y-Yellow, B-Brown, Bl-Black, G-Green
[4]Total residual chlorine measured after sample prep only if present in initial sample characterization

Peer Rev by GB Date 11/24/09 PROJECT I.D. OMEG0905
(First 8 characters of Laboratory Sample ID)

Coastal Bioanalytics
6400 Enterprise Court, Gloucester, VA 23061
PH: 804-694-8285, FAX: 804-695-1129
www.coastalbio.com

SAMPLE INFORMATION/CHAIN-OF-CUSTODY (FORM ETF2011D Rev. 10/10/07)

Lab Sample ID (Lab Use Only)

0	M	E	G	0	9	0	5	-	A
A	A	A	A	Y	Y	N	N		A

FACILITY INFORMATION

CLIENT/FACILITY NAME	Omega Protein	CONTACT & PHONE #	Ted Schultz 804-453-4211
NPDES PERMIT NO	VA0003867	OUTFALL # OR LOCATION	002
SAMPLE CHLORINATED?	No	SAMPLE DECHLORINATED? No	IF CHLORINE PRESENT UPON ARRIVAL AT LAB, DOES PERMIT SPECIFY DECHLORINATION OF SAMPLES?

TESTS REQUESTED:	SPECIES OR EPA METH #	M. bahia 2007.0	ACUTE ☑	CHRONIC ☐
	SPECIES OR EPA METH #		ACUTE ☐	CHRONIC ☐
OTHER TESTS:				

A SPECIFIC DILUTION SERIES MAY BE REQUIRED IN THE PERMIT. A DEFAULT SERIES OF 100, 50, 25, 12.5 AND 6.3%, OR CONCENTRATIONS USED IN PRIOR TESTING, WILL BE USED UNLESS INDICATED OTHERWISE. IF IN DOUBT PLEASE ATTACH A COPY OF APPLICABLE PERMIT PAGES.

GRAB SAMPLE INFORMATION

SAMPLE DATE	SAMPLE TIME	SAMPLE VOLUME

COMPOSITE SAMPLE INFORMATION

COMPOSITE START DATE & TIME	11/9/09 0800	COMPOSITE END DATE & TIME	11/10/09 0800
TIME OR FLOW PROPORTIONAL COMPOSITE INFORMATION	NUMBER SUBSAMPLES	VOL (ml) SUBSAMPLES	TIME INCREMENT
	SET VOLUME SUBSAMPLE 50ml	SET VOLUME FLOW 1/1000 gal	TOTAL VOLUME 26 gal

FOR VARIABLE VOLUME SUBSAMPLES BASED ON FLOW (COMPOSITING "BY HAND") ATTACH SAMPLE AND FLOW INFORMATION ON SEPARATE SHEET

FIELD MEASUREMENTS

DISCHARGE TEMP (°C)	DISCHARGE pH (S.U.)	SAMPLE TEMP (°C)	SAMPLE TRC (mg/l)	DATE/TIME (e.g. 02/23/00 1835)	INITIALS
15.2	6.49	2°C		11/10/09	DHS

MEASUREMENTS MUST BE TAKEN WITHIN 15 MINUTES OF SAMPLE OR LAST SUBSAMPLE COLLECTION.

COMMENTS:

Theodore Schultz / Tech Supervisor (PRINTED NAME/AFFILIATION SAMPLER/ANALYST) Theodore Schultz (SIGNATURE) 11/10/09 (DATE)

RELINQUISHED BY	DATE	TIME	RECEIVED BY
	11/10/09	10:45	

SHIPPING METHOD: UPS____ FEDEX____ HAND DELIVERY X OTHER____

CONDITION ON ARRIVAL: ACCEPTABLE X OTHER____

SAMPLE ARRIVAL TEMP: (°C) / ARRIVED ON ICE? YES X NO____

NOTE: It is the responsibility of the sampler to insure that samples are properly collected, preserved (>0-6° C) and shipped. Sample hold time is 36 h. Additional costs may be incurred by improper preservation, shipping or receipt of samples after 3 p.m. or on weekends and holidays.

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of Dec, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
7														
8	8:40	<2	10:55	<0.1	9.9	7.78	18	8:50	<2	10.53	<0.1	10.0	7.86	18
9														
10														
11														
12														
13														
14														
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30														
31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Dempster*

Name of Sampler: Ted Schultz

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of Dec, 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
7														
8	8:55	<2	10.51	<0.1	9.9	7.74	18	9:05	<2	10.55	<0.1	16.1	7.80	18
9														
10														
11														
12														
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31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Kimberly*

Name of Sampler: Ted Schultz

From: Ted Schultz [tschultz@OmegaProteinInc.com]
Sent: Monday, December 28, 2009 9:03 AM
To: Bishop,Patrick
Subject: RE: Chesapeake Bay Samples for Nov
Attachments: CB Refrig Nov Sample (Dec) Tangier #2.xls; CB Refrig Nov Sample (Dec) Conrad #1.xls

Pat, here are the results of the set of samples actually collected at the first opportunity in December as substitutes for the ones we were not able to collect in November.

Ted Schultz

Omega Protein, Inc.
610 Menhaden Road
Reedville, VA 22539
Phone 804.453.4211 ext 120 | **Fax** 804.453.4123
Email tschultz@OmegaProteinInc.com | http://www.omegaproteininc.com

---

From: Bishop,Patrick [mailto:Patrick.Bishop@deq.virginia.gov]
Sent: Tuesday, December 15, 2009 10:30 AM
To: Ted Schultz
Cc: Bill Purcell
Subject: RE: Chesapeake Bay Samples for Nov

Thx.

Patrick L. Bishop
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Direct - (804) 527-5127
Fax - (804) 527-5106
Patrick.Bishop@deq.virginia.gov

Always remember that you're unique...Just like everybody else. - Zen proverb

---

From: Ted Schultz [mailto:tschultz@OmegaProteinInc.com]
Sent: Tuesday, December 15, 2009 10:07 AM
To: Bishop,Patrick
Cc: Bill Purcell

Subject: Chesapeake Bay Samples for Nov

Patrick,

Just to elaborate on not pulling the Chesapeake Bay samples in November. We had one day early in the month when we could have gone out. As I recall, the day was not conducive to either my or the sampling boat pilot's schedules and it was early in the month so we didn't worry about running out of time. Unbeknownst to us, due to weather and fishing conditions for the rest of the month, it was not possible to get samples. As such, we sampled at our next opportunity (and only) 12/8/09 and sampled from 4 boats, using the first two for the November requirement and the second two for December.

Ted Schultz

Omega Protein, Inc.
610 Menhaden Road
Reedville, VA 22539
Phone 804.453.4211 ext 120 | **Fax** 804.453.4123
Email tschultz@OmegaProteinInc.com | http://www.omegaproteininc.com

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of Nov (in Dec), 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
7														
8	8:05	<2	10.48	<0.1	9.6	7.55	18	8:20	<2	10.37	<0.25	9.3	7.90	17
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Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Tangier Is.*

Name of Sampler: Ted Schultz

Omega Protein, Inc.
VPDES Permit # VA0003867
Part I.B.3

Month of Nov (in Dec), 2009

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH SU	Salinity ppt
1														
2														
3														
4														
5														
6														
7														
8	7:15	<2	10.45	<0.1	9.6	7.60	17	7:25	<2	10.43	<0.1	9.3	7.85	<2
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31														
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	Amm (mg/L)	Temp °C	pH (SU)	Salinity ppt

Name of Vessel: *Conrad*

Name of Sampler: Ted Schultz

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/1/09 To 12/6/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 1/5/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 12/1/09 To 12/17/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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William E. Murrell 1/5/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 12/14/09 To 12/2009

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 1/5/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/1/2009 To 12/31/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

William E. Russell 1/5/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/1/2009 To 12/31/09

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 1/5/2010
Signature of Principal Officer or Authorized Agent / Date

VA 0003867

Mo52

Swift Creek Environmental, Inc.

8201 County Drive
Disputanta, Virginia 23842-6144
Phone: 804-991-3213 Facsimile: 804-991-2194
E-mail: swiftcreekinc@aol.com

December 29, 2009
Project #06-012

Mr. William Purcell
Omega Protein
P.O. Box 175
Reedville, Virginia 22801

Re: 4th Quarter 2009 Ground Water Monitoring Report
Aerated Lagoon
Omega Protein, Reedville, Virginia
VPDES Permit No. VA0003867

Dear Mr. Purcell:

With requirements to the VPDES Permit No. VA0003867, Swift Creek Environmental, Inc, has completed the 2009, 4th quarterly ground water monitoring report for the above referenced facility. The location of the facility is depicted on Figure 1 - Site Vicinity Map. The lagoon wells sampled are designated and identified as monitor wells, MWL1, MWL2, MWL3, MWL4, MWL5 and MWL6. The location of the lagoon monitor wells are presented on the attached Potentiometric Surface Map - Figure 2.

A third order survey was conducted to determine relative well elevations and static ground water levels. Monitor well, ground water levels and relative elevations are presented in Table 1. An arbitrary datum of 10.00 feet (from USGS. 7.5 minute Reedville, Virginia Quadrangle) was established as a benchmark.

TABLE 1. Monitor Well Elevation, Ground Water Level & Product Data

Monitor Well	Total Depth (feet)	Depth to GW (feet)	PID Reading (ppm)	Elevation - Top of Casing	Elevation - GW (feet)
MWL1	15.0	10.38	0	13.52	3.14
MWL2	15.0	9.88	0	12.20	2.32
MWL3	15.0	2.62	0	8.36	5.74
MWL4	15.0	9.37	0	14.80	5.43
MWL5	15.0	1.13	0	12.48	11.35
MWL6	15.0	0.03	0	12.17	12.14

Topographic and groundwater data indicates that ground water flow is to the south. Attached as Figure 2 is the Lagoon Potentiometric Surface Map.

On December 17, 2009, the lagoon monitor wells were developed and sampled for parameters as required in the VPDES Permit and requested by the VDEQ. Ground water samples were obtained from on-site monitor wells MWL1 through MWL6. Depth to ground water and total well depths were obtained using an oil/water interface probe to calculate the height of the standing water column in the monitor wells. After the volume of standing water was calculated in the monitor wells, a minimum of three well volumes of ground water was removed. Ground water samples were then collected using clean, disposable, plastic bailers to minimize the potential for cross contamination of monitor wells. The samples were placed in an insulated cooler packed with ice for shipment to the laboratory. The water samples were submitted to Air, Water and Soil Laboratories, Incorporated for laboratory analysis of Aluminum, Copper, Silver, Fecal Coliform, Nitrate, Chloride, Ammonia, TOC and Phosphorous. Chain of Custody forms were completed on-site and submitted with the samples. Chemical results for the 2009, 4th Quarter sampling event are presented in Tables 2 and 3. The Certificates of Analyses and Chain of Custody are attached.

TABLE 2. Summary of Field Ground Water Results

Sample ID/Monitor well	Turbidity	pH	Specific Conductivity	Dissolved Oxygen	Temperature
SC-OP-MWL1	36.20	5.80	1167	1.41	12.3
SC-OP-MWL2	5.81	5.09	1129	1.03	12.7
SC-OP-MWL3	14.71	5.75	824	0.75	10.8
SC-OPMWL4	3.18	5.78	323	4.50	12.5
SC-OP-MWL5	70.5	5.43	1157	2.07	9.0
SC-OP-MWL6	25.50	5.38	158	2.10	9.8
Units	µn	SU	u/s	mg/l	Celsius
Quantification Limits	.01	0.01	1.0	.01	0.1

TABLE 3. Summary of Analytical Ground Water Results

Sample ID Monitor well	Al	Cu	Ag	E-Coli	Nitrate	Chloride	Ammonia	TOC	Phosphorus
SC-OP-MWL1	2.60	0.0117	<0.01	<1	0.8	115	0.53	29.2	0.11
SC-OP-MWL2	7.22	<0.01	<0.01	<1	8.3	120	8.08	4.2	0.04
SC-OP-MWL3	2.18	<0.01	<0.01	<1	17.9	82.4	0.68	1.2	0.03
SC-OP-MWL4	11.7	<0.01	<0.01	<1	3.9	22.2	<0.1	2.5	0.07
SC-OP-MWL5	5.58	<0.01	<0.01	<1	2.5	97.8	3.34	1.8	0.02
SC-OP-MWL6	0.858	<0.01	<0.01	<1	0.8	7.0	<0.1	1.2	0.02
Units	mg/l	mg/l	mg/l	MPN	mg/l	mg/l	mg/l	mg/l	mg/l
Quantification Limits	0.05	0.01	0.01	1.0	0.1	1.0	0.1	1.0	0.05-0.5
002 Outfall Discharge Limits	-	NL	NL	200	NL	NL	45	NL	NL
MCL's Primary or Secondary	-	1.3	0.1	0.0	10	250	-	-	-

Based on the current sampling event data, the August 31, 2009 recorded E-Coli concentration of 1410 MPN/100ml in monitor well, MWL1 was an anomaly and not indicative of potential ground water impairment.

The historical median concentration for Nitrate in monitor well, MWL3 is 9.11 mg/kg with previously recorded concentrations ranging between 3.02 mg/l and 18.4 mg/l. Although the current recorded Nitrate concentration is above the MCL, it is within the historical concentration range.

All other parameters quantitatively analyzed for this sampling event were either below Outfall Discharge Limits and/or the federal primary or secondary drinking water standard. These parameters were also within historical concentration ranges for each analyte. The next quarterly ground water sampling event is scheduled for March 2010.

Should you have any questions regarding this letter, please contact me at 804.991.3213. Thank you for the opportunity to provide these services.

Sincerely,

B. Thomas Houghton, Principal
Virginia Professional Geologist #950

attachments: Site Vicinity Map
Potentiometric Surface Map
Certificates of Analyses and Chain of Custody

cc: Ms. Denise Mosca - VDEQ Piedmont Regional Office

SCALE 1:24.000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

USGS 7.5 Minute Topographic Survey

Reedville, VA - 1968 - Minor Revison 1992

Figure No.:	FIGURE 1
Figure Name:	Site Vicinity Map
Client: Omega Protein	Job No.: 06-012
Site: Reedville, Virginia	Date: 01/2009

Swift Creek Environmental, Inc.

8201 County Drive, Disputanta, VA 23842-6144

SCALE 1:24,000

1 0 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 Feet

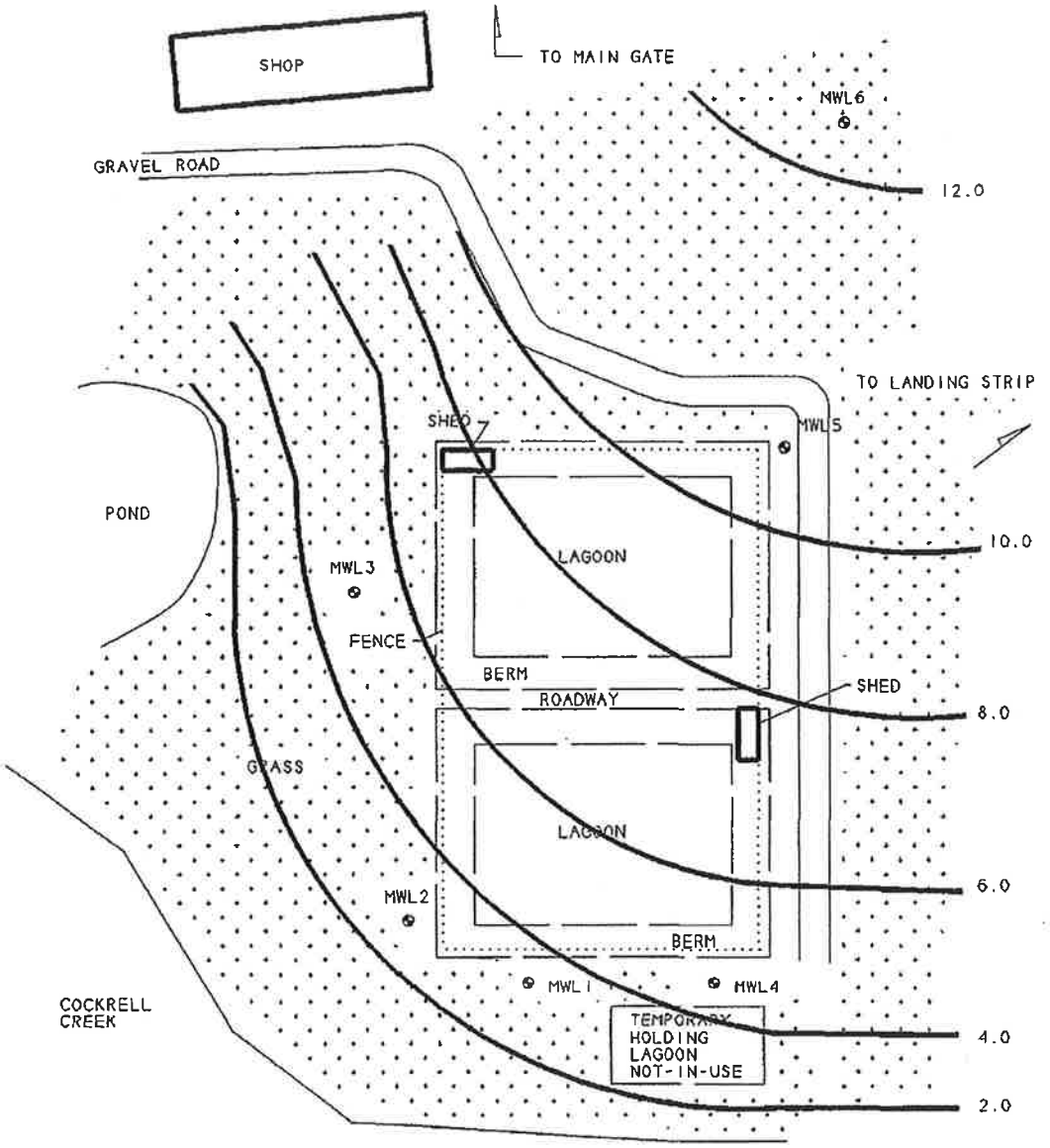
USGS 7.5 Minute Topographic Survey

Reedville, VA - 1968 - Minor Revison 1992

Swift Creek ENVIRONMENTAL, INC.

8201 County Drive, Disputanta, VA 23842-6144

Figure No.:	FIGURE 1		
Figure Name:	Site Vicinity Map		
Client:	Omega Protein	Job No.:	06-012
Site:	Reedville, Virginia	Date:	01/2009



Swift Creek Environmental, Inc. 8201 County Drive, Disputanta, VA 23842-6144	FIGURE NO: 2
	FIGURE NAME: POTENTIOMETRIC SURFACE MAP
	CLIENT: OMEGA PROTEIN
	JOB NO: 06-012
	SITE: REEDVILLE, VA
	DATE: 12/09

AIR WATER & SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09120346

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: December 17, 2009
Date Issued: December 28, 2009

Submitted To: Tom Houghton
Client Site I.D.: Lagoon Well

Project Number: 06-012
Purchase Order 06-012

Sample I.D.: SC-OP-MWL1 Laboratory Sample I.D.: 09120346-001
Date/Time Sampled: 12/17/09 11:45

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	12/17/09 15:20	WBP
Aluminum	SW6010C	2.50 mg/L	0.0500	12/22/09 14:25	CGT
Copper	SW6010C	0.0117 mg/L	0.0100	12/22/09 14:25	CGT
Silver	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:25	CGT
Ammonia	EPA350.1/R2.0	0.53 mg/L	0.10	12/21/09 13:30	LMT
Chloride	EPA300.0/R2.1	115 mg/L	1.0	12/23/09 17:25	RPF
Nitrate	Calc.	0.8 mg/L	0.1	12/18/09 10:19	JPV
Nitrate+Nitrite	SM18/4500-NO3 F	0.8 mg/L	0.1	12/18/09 12:56	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	12/18/09 10:19	JPV
Phosphorus, Total	SM18/4500-P E	0.11 mg/L	0.01	12/22/09 12:55	JPV
Total Organic Carbon (TOC)	SW9060	29.2 mg/L	1.0	12/28/09 11:43	BHW

Sample I.D.: SC-OP-MWL2 Laboratory Sample I.D.: 09120346-002
Date/Time Sampled: 12/17/09 12:01

Parameter	Method	Sample Results	Rep Limit	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	12/17/09 15:20	WBP
Aluminum	SW6010C	7.22 mg/L	0.0500	12/22/09 14:33	CGT
Copper	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:33	CGT
Silver	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:33	CGT
Ammonia	EPA350.1/R2.0	8.08 mg/L	0.10	12/21/09 13:32	LMT
Chloride	EPA300.0/R2.1	120 mg/L	1.0	12/23/09 18:08	RPF
Nitrate	Calc.	8.3 mg/L	0.1	12/18/09 10:19	JPV
Nitrate+Nitrite	SM18/4500-NO3 F	8.3 mg/L	0.1	12/18/09 13:08	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	12/18/09 10:19	JPV
Phosphorus, Total	SM18/4500-P E	0.04 mg/L	0.01	12/22/09 12:55	JPV
Total Organic Carbon (TOC)	SW9060	4.2 mg/L	1.0	12/23/09 15:33	BHW

AIR WATER & SOIL LABORATORIES, INC.
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Certificate of Analysis

Final Report

Laboratory Order ID 09120346

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: December 17, 2009
Date Issued: December 28, 2009

Submitted To: Tom Houghton
Client Site I.D.: Lagoon Well

Project Number: 06-012
Purchase Order 06-012

Sample I.D.: SC-OP-MWL3 Laboratory Sample I.D.: 09120346-003
Date/Time Sampled: 12/17/09 12:08

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	<1 mpn/100mL	1	12/17/09 15:20	WBP
Aluminum	SW6010C	2.18 mg/L	0.0500	12/22/09 14:36	CGT
Copper	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:36	CGT
Silver	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:36	CGT
Ammonia	EPA350.1/R2.0	0.68 mg/L	0.10	12/21/09 13:34	LMT
Chloride	EPA300.0/R2.1	82.4 mg/L	1.0	12/23/09 18:22	RPF
Nitrate	Calc.	17.9 mg/L	0.1	12/18/09 10:19	JPV
Nitrate+Nitrite	SM18/4500-NO3 F	17.9 mg/L	0.1	12/18/09 13:11	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	12/18/09 10:19	JPV
Phosphorus, Total	SM18/4500-P E	0.03 mg/L	0.01	12/22/09 12:55	JPV
Total Organic Carbon (TOC)	SW9060	1.2 mg/L	1.0	12/23/09 15:33	BHW

Sample I.D.: SC-OP-MWL4 Laboratory Sample I.D.: 09120346-004
Date/Time Sampled: 12/17/09 11:36

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	12/17/09 15:20	WBP
Aluminum	SW6010C	11.7 mg/L	0.0500	12/22/09 14:39	CGT
Copper	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:39	CGT
Silver	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:39	CGT
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	12/21/09 14:03	LMT
Chloride	EPA300.0/R2.1	22.2 mg/L	1.0	12/23/09 19:04	RPF
Nitrate	Calc.	3.9 mg/L	0.1	12/18/09 10:19	JPV
Nitrate+Nitrite	SM18/4500-NO3 F	3.9 mg/L	0.1	12/18/09 13:14	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	12/18/09 10:19	JPV
Phosphorus, Total	SM18/4500-P E	0.07 mg/L	0.01	12/22/09 12:55	JPV
Total Organic Carbon (TOC)	SW9060	2.5 mg/L	1.0	12/23/09 15:33	BHW

AIR WATER & SOIL LABORATORIES, INC.
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Certificate of Analysis

Final Report

Laboratory Order ID 09120346

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: December 17, 2009
Date Issued: December 28, 2009

Submitted To: Tom Houghton
Project Number: 06-012

Client Site I.D.: Lagoon Well
Purchase Order 06-012

Sample I.D.: SC-OP-MWL5 Laboratory Sample I.D.: 09120346-005
Date/Time Sampled: 12/17/09 11:06

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	12/17/09 15:20	WBP
Aluminum	SW6010C	5.58 mg/L	0.0500	12/22/09 14:42	CGT
Copper	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:42	CGT
Silver	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:42	CGT
Ammonia	EPA350.1/R2.0	3.34 mg/L	0.10	12/21/09 14:05	LMT
Chloride	EPA300.0/R2.1	97.8 mg/L	1.0	12/23/09 19:18	RPF
Nitrate	Calc.	2.5 mg/L	0.1	12/18/09 10:19	JPV
Nitrate+Nitrite	SM18/4500-NO3 F	2.5 mg/L	0.1	12/18/09 13:17	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	12/18/09 10:19	JPV
Phosphorus, Total.	SM18/4500-P E	0.02 mg/L	0.01	12/22/09 12:55	JPV
Total Organic Carbon (TOC)	SW9060	1.8 mg/L	1.0	12/23/09 15:33	BHW

Sample I.D.: SC-OP-MWL6 Laboratory Sample I.D.: 09120346-006
Date/Time Sampled: 12/17/09 11:20

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	12/17/09 15:20	WBP
Aluminum	SW6010C	0.8586 mg/L	0.0500	12/22/09 14:45	CGT
Copper	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:45	CGT
Silver	SW6010C	< 0.01 mg/L	0.0100	12/22/09 14:45	CGT
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	12/21/09 14:08	LMT
Chloride	EPA300.0/R2.1	7.0 mg/L	1.0	12/23/09 19:32	RPF
Nitrate	Calc.	0.8 mg/L	0.1	12/18/09 10:19	JPV
Nitrate+Nitrite	SM18/4500-NO3 F	0.8 mg/L	0.1	12/18/09 13:20	LMT
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	12/18/09 10:19	JPV
Phosphorus, Total	SM18/4500-P E	0.02 mg/L	0.01	12/22/09 12:55	JPV
Total Organic Carbon (TOC)	SW9060	1.2 mg/L	1.0	12/23/09 15:33	BHW

AIR WATER & SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 09120346

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: December 17, 2009
Date Issued: December 28, 2009

Submitted To: Tom Houghton

Project Number: 06-012

Client Site I.D.: Lagoon Well

Purchase Order 06-012

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a dry weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

AIR WATER SOIL LABORATORIES, INC.
2109A NORTH HAMILTON STREET
RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE 1 OF 1

CLIENT NAME: Swift Creek Environmental, Inc	PROJECT NAME: Omega Protein
CLIENT CONTACT: Tom Houghton	SITE NAME: Lagoon
CLIENT ADDRESS: 8201 County Dr., Disputanta, VA 23842	PROJECT NUMBER: 06-012
CLIENT PHONE NUMBER: 804-991-3213	P.O. NUMBER: 06-012
CLIENT FAX NUMBER: 804 991-2194 EMAIL: swiftcreekinc@aol.com	REGULATORY AUTHORITY: VDEQ
Is sample for compliance reporting? (YES) NO — Is sample from a chlorinated supply? YES (NO)	PWS I.D. #:
SAMPLER NAME (PRINT): B Thomas Houghton SAMPLER SIGNATURE:	Turn Around Time: Std Day(s)
Have ammonia and TKN samples been verified to be dechlorinated at the time of sampling?: YES NO	

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	MATRIX: Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other	ANALYSIS / (PRESERVATIVE): E Coli	Chlorides	Copper-Aluminum Sulfate	Ammonia	Nitrate	Total Phos	TOC	COMMENTS: Quote I.D.: PLEASE NOTE PRESERVATIVE(S) or PUMP RATE (L/min)
1) SC-OP-MWL1			12/17/09	10:48	7	X			X						X	X	X	X	X	X	X	
2) SC-OP-MWL2				12:01																		
3) SC-OP-MWL3				12:08																		
4) SC-OP-MWL4				11:36																		
5) SC-OP-MWL5				11:06																		
6) SC-OP-MWL6				11:20																		
7)																						
8)																						
9)																						
10)																						

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
RP	12/17/09 3:30pm	[signature]	12/17/09 1455
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package: Level I ☐ Level II ☐ Level III ☐ Level IV ☐

LAB USE ONLY — COOLER TEMP 1.0 °C

SCE
Lagoon Well
09120346
DUE: 5 Days
Recd: 12/17/09

AIR WATER & SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

SCE
Lagoon Well

09120346
DUE: 5 Days
Recd: 12/17/09

Sample Conditions Checklist

Opened by: (print) GW
(sign) GW

Lab ID No.:

Date Cooler Opened: 12-17-09

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☐ Walk In ☑			
2.	Were custody seals used?	☐	☐	☑
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
6.	Are the samples received on ice?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (4 degrees Celsius +/-2)	☑	☐	☐
8.	Are all samples within holding time for requested tests?	☑	☐	☐
9	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
10	Are all samples in proper containers for the analyses requested?	☑	☐	☐
11	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
12	Are all volatile organic containers free of headspace?	☐	☐	☑

COMMENTS

AIR WATER SOIL LABORATORIES, INC.

pH Preservation Log

Order ID 09120346

Date Performed: 12/17/09

Analyst Performing Check: _____

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO								
		pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)
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AIR WATER SOIL LABORATORIES, INC.

pH Preservation Log

Order ID 0912034G

Date Performed: 12/17

Analyst Performing Check: GW

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO								
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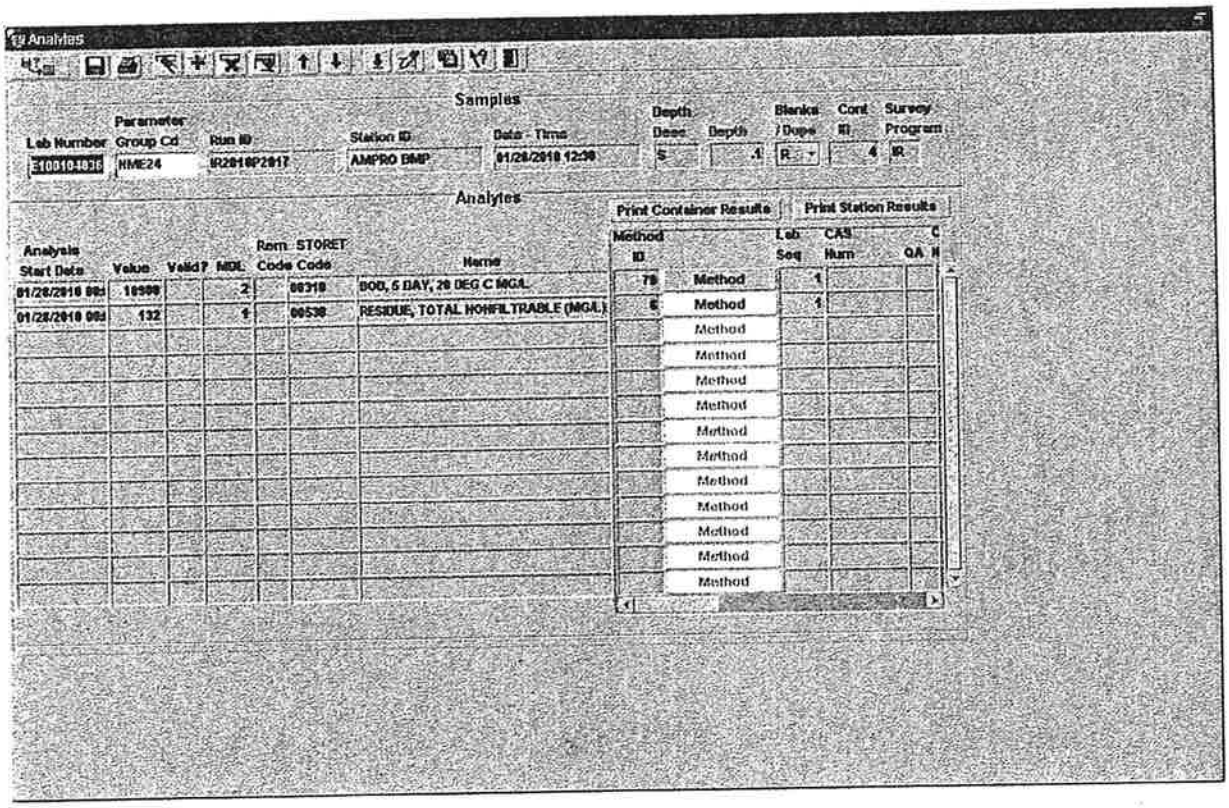
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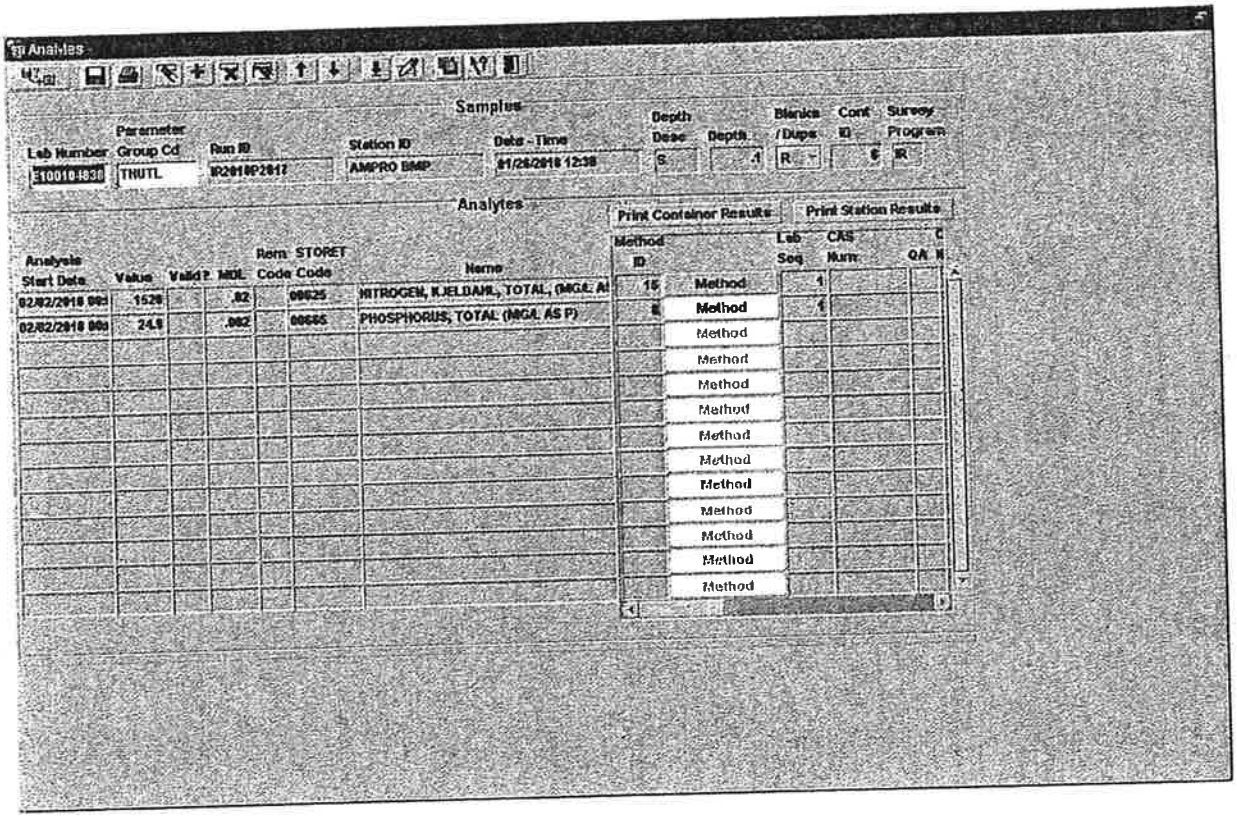
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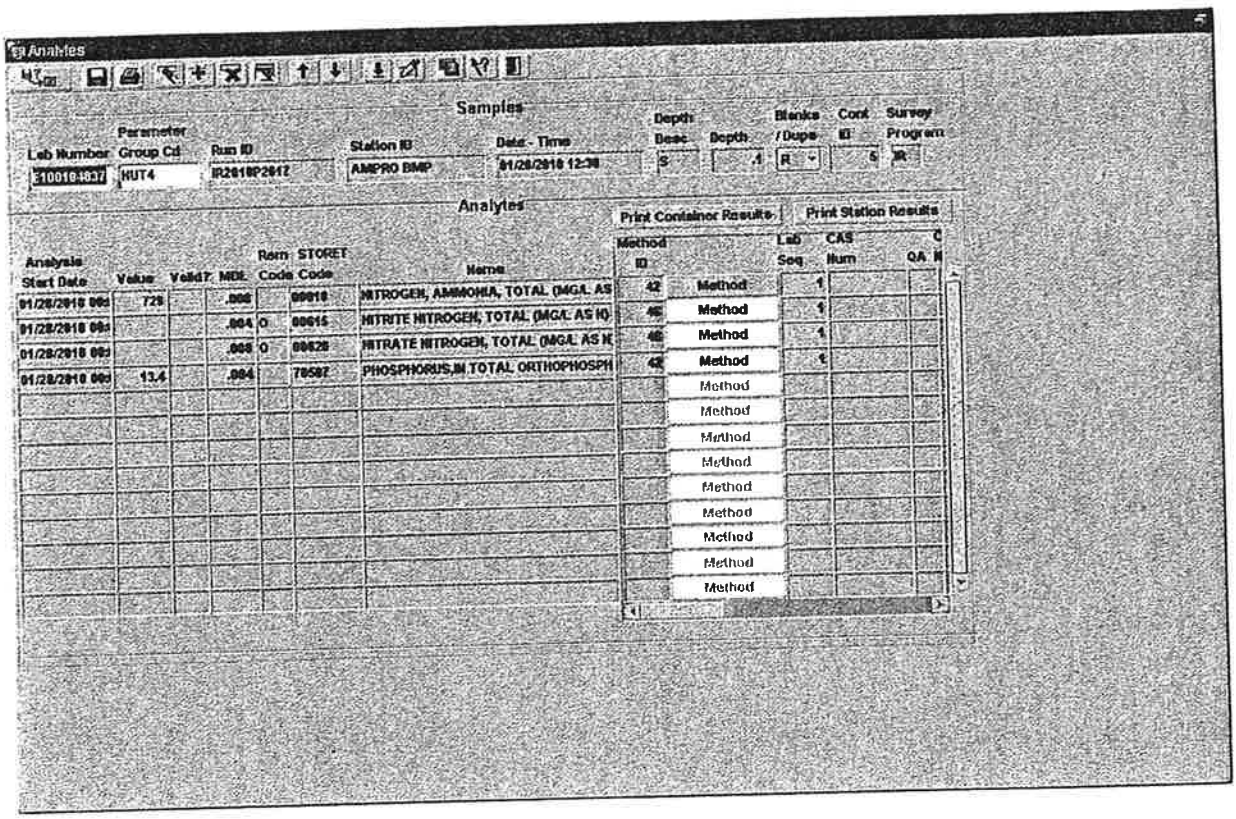
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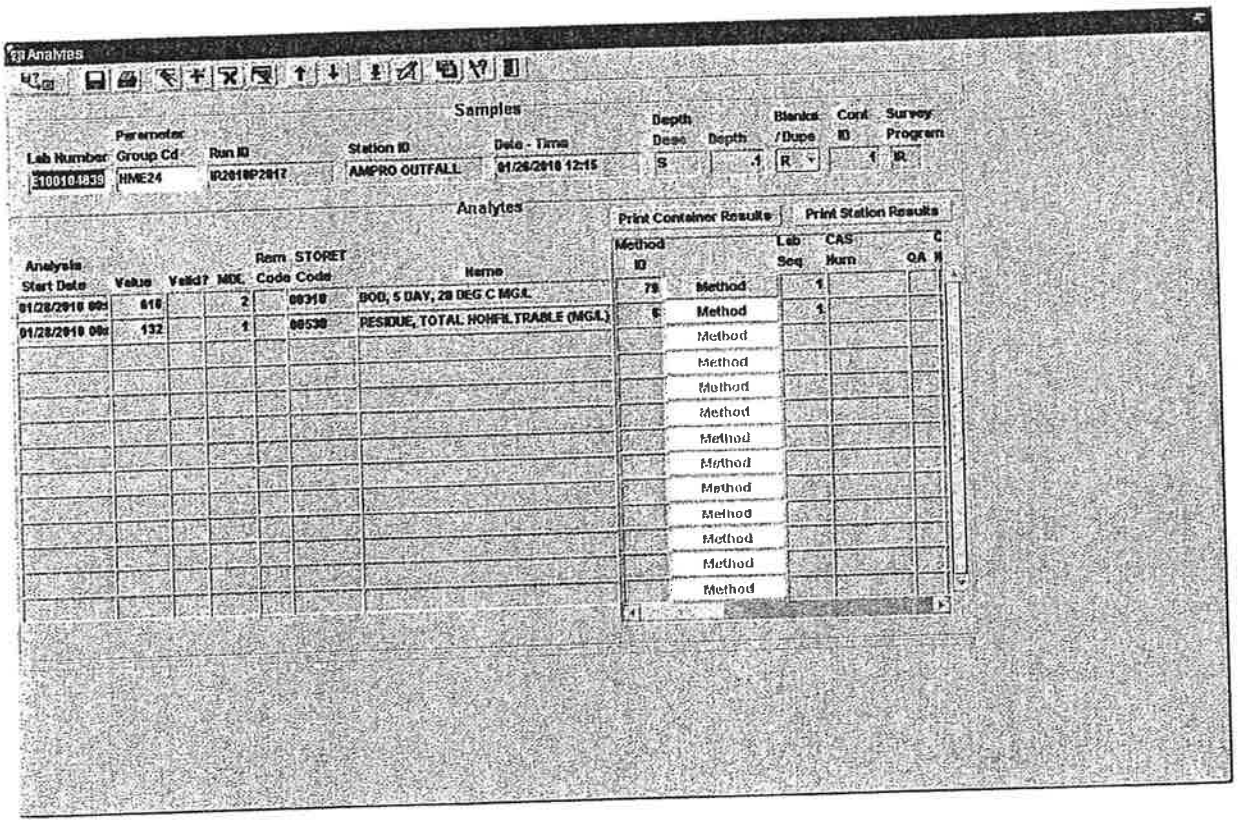
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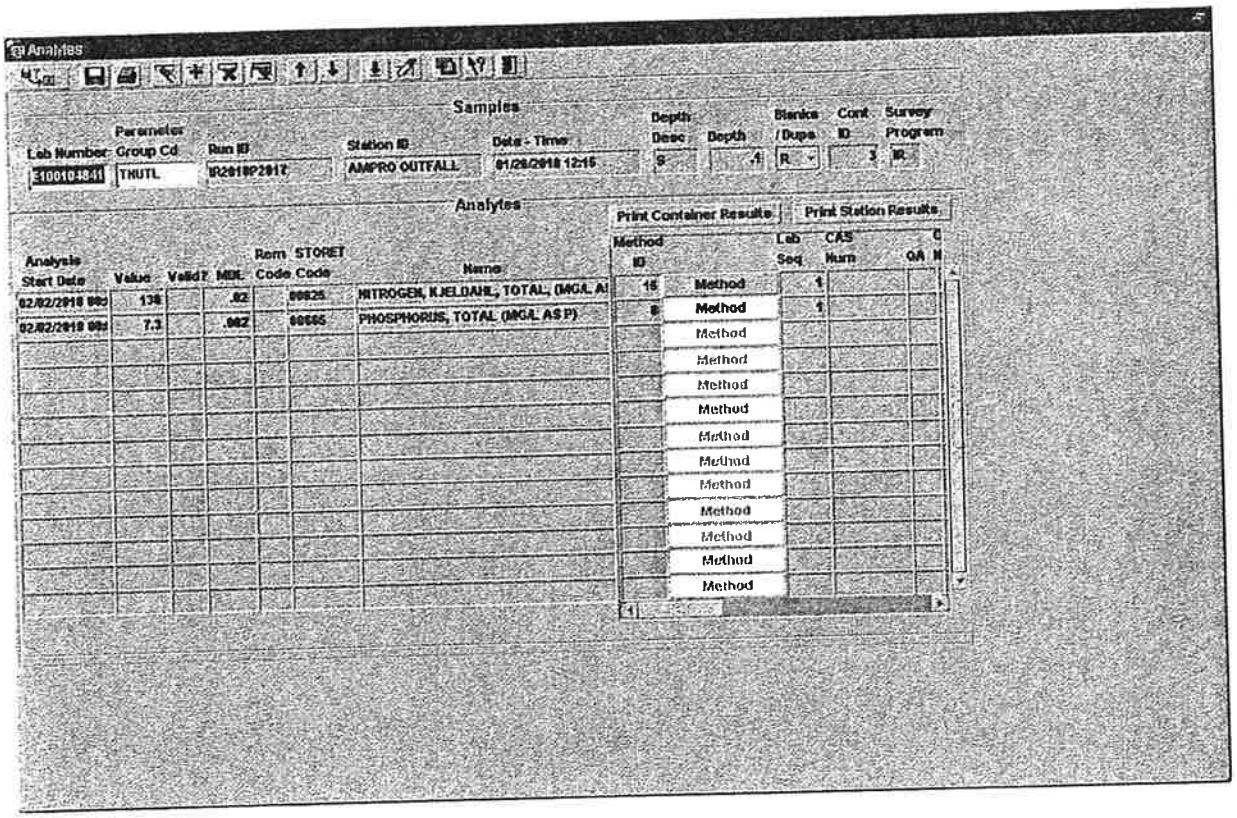
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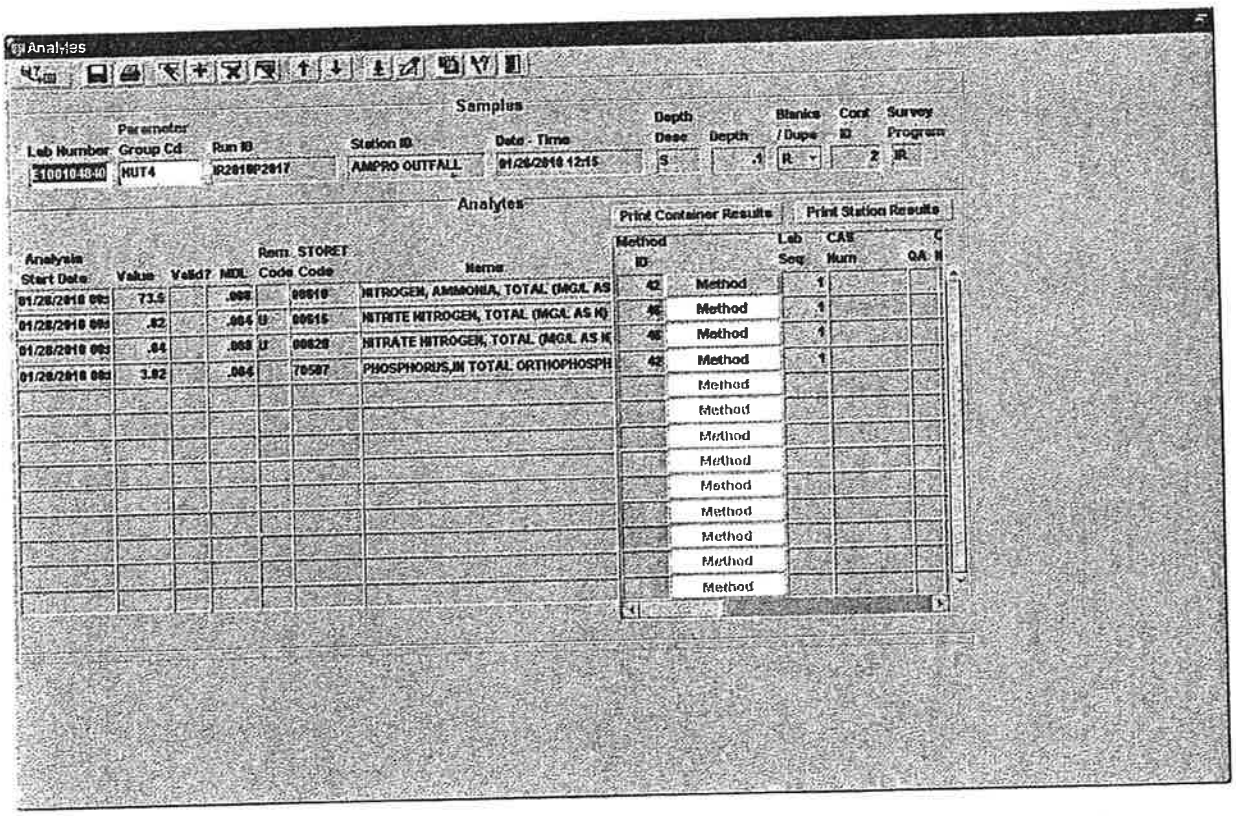
Outfall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outfall

VA0003867

Swift Creek Environmental, Inc.

8201 County Drive
Disputanta, Virginia 23842-6144
Phone: 804-991-3213 Facsimile: 804-991-2194
E-mail: swiftcreekinc@aol.com

RECEIVED
MAR 18 2010
PRO

March 12, 2010
Project #06-012

Mr. William Purcell
Omega Protein
P.O. Box 175
Reedville, Virginia 22801

Re: 4th Quarter 2009 Ground Water Monitoring Report
Aerated Lagoon
Omega Protein, Reedville, Virginia
VPDES Permit No. VA0003867

Dear Mr. Purcell:

With requirements to the VPDES Permit No. VA0003867, Swift Creek Environmental, Inc, has completed the 2010, 1st quarterly ground water monitoring report for the above referenced facility. The location of the facility is depicted on Figure 1 - Site Vicinity Map. The lagoon wells sampled are designated and identified as monitor wells, MWL1, MWL2, MWL3, MWL4, MWL5 and MWL6. The location of the lagoon monitor wells are presented on the attached Potentiometric Surface Map - Figure 2.

A third order survey was conducted to determine relative well elevations and static ground water levels. Monitor well, ground water levels and relative elevations are presented in Table 1. An arbitrary datum of 10.00 feet (from USGS. 7.5 minute Reedville, Virginia Quadrangle) was established as a benchmark.

TABLE 1. Monitor Well Elevation, Ground Water Level & Product Data

Monitor Well	Total Depth (feet)	Depth to GW (feet)	PID Reading (ppm)	Elevation - Top of Casing	Elevation - GW (feet)
MWL1	15.0	10.46	0	13.52	3.06
MWL2	15.0	7.90	0	12.20	4.30
MWL3	15.0	2.94	0	8.36	5.42
MWL4	15.0	10.53	0	14.80	4.27
MWL5	15.0	1.01	0	12.48	11.47
MWL6	15.0	0.00	0	12.17	12.17

Topographic and groundwater data indicates that ground water flow is to the south. Attached as Figure 2 is the Lagoon Potentiometric Surface Map.

On March 4, 2010, the lagoon monitor wells were developed and sampled for parameters as required in the VPDES Permit and requested by the VDEQ. Ground water samples were obtained from on-site monitor wells MWL1 through MWL6. Depth to ground water and total well depths were obtained using an oil/water interface probe to calculate the height of the standing water column in the monitor wells. After the volume of standing water was calculated in the monitor wells, a minimum of three well volumes of ground water was removed. Ground water samples were then collected using clean, disposable, plastic bailers to minimize the potential for cross contamination of monitor wells. The samples were placed in an insulated cooler packed with ice for shipment to the laboratory. The water samples were submitted to Air, Water and Soil Laboratories, Incorporated for laboratory analysis of Aluminum, Copper, Silver, Fecal Coliform, Nitrate, Chloride, Ammonia, TOC and Phosphorous. Chain of Custody forms were completed on-site and submitted with the samples. Chemical results for the 2010, 1st Quarter sampling event are presented in Tables 2 and 3. The Certificates of Analyses and Chain of Custody are attached.

TABLE 2. Summary of Field Ground Water Results

Sample ID/Monitor well	Turbidity	pH	Specific Conductivity	Dissolved Oxygen	Temperature
SC-OP-MWL1	37.3	5.93	998	1.81	12.2
SC-OP-MWL2	6.3	5.33	1020	1.11	14.1
SC-OP-MWL3	20.2	6.02	841	1.00	11.6
SC-OPMWL4	11.1	5.99	333	4.11	13.7
SC-OP-MWL5	87.0	5.62	121	2.22	12.7
SC-OP-MWL6	28.0	5.43	166	2.92	12.4
Units	µn	SU	u/s	mg/l	Celsius
Quantification Limits	.01	0.01	1.0	.01	0.1

TABLE 3. Summary of Analytical Ground Water Results

Sample ID Monitor well	Al	Cu	Ag	E-Coli	Nitrate	Chloride	Ammonia	TOC	Phosphorus
SC-OP-MWL1	1.10	<0.01	<0.01	<1	1.8	116	3.41	19.8	0.23
SC-OP-MWL2	2.73	<0.01	<0.01	<1	13.4	158	8.52	4.4	0.02
SC-OP-MWL3	1.98	<0.01	<0.01	<1	13.0	33.2	0.25	1.1	0.06
SC-OP-MWL4	1.65	0.012	<0.01	<1	1.2	12.8	<0.1	2.6	0.05
SC-OP-MWL5	4.97	<0.01	<0.01	<1	0.3	14.8	0.60	6.3	0.12
SC-OP-MWL6	5.60	<0.01	<0.01	<1	0.7	6.8	<0.1	1.1	0.13
Units	mg/l	mg/l	mg/l	MPN	mg/l	mg/l	mg/l	mg/l	mg/l
Quantification Limits	0.05	0.01	0.01	1.0	0.1	1.0	0.1	1.0	0.05-0.5
002 Outfall Discharge Limits	-	NL	NL	200	NL	NL	45	NL	NL
MCL's Primary or Secondary	-	1.3	0.1	0.0	10	250	-	-	-

All parameters quantitatively analyzed for this sampling event were below Outfall Discharge Limits. Although the Nitrate recorded in monitor wells MW2 and MW3 were slightly above the federal primary drinking water standard they were within historical concentration ranges. The next quarterly ground water sampling event is scheduled for June 2010.

Should you have any questions regarding this letter, please contact me at 804.991.3213. Thank you for the opportunity to provide these services.

Sincerely,

B. Thomas Houghton, Principal
Virginia Professional Geologist #950

attachments: Site Vicinity Map
Potentiometric Surface Map
Certificates of Analyses and Chain of Custody

cc: Ms. Denise Mosca - VDEQ Piedmont Regional Office

SCALE 1:24.000

1 MILE

7000 Feet

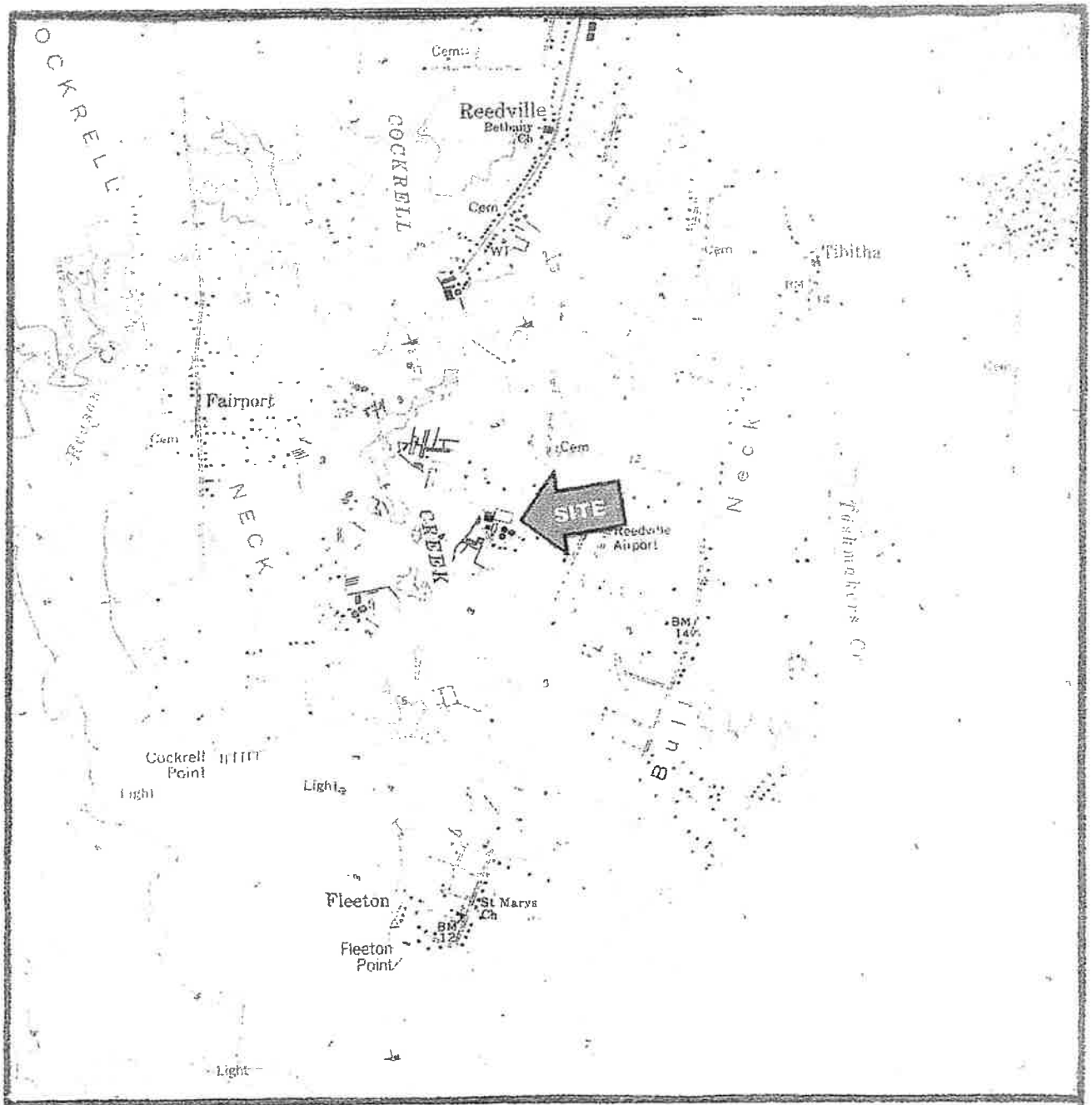
USGS 7.5 Minute Topographic Survey

Reedville, VA - 1968 - Minor Revison 1992

Figure No.:	FIGURE 1
Figure Name:	Site Vicinity Map
Client: Omega Protein	Job No.: 06-012
Site: Reedville, Virginia	Date: 01/2009

Swift Creek Environmental, Inc.

8201 County Drive, Disputanta, VA 23842-6144



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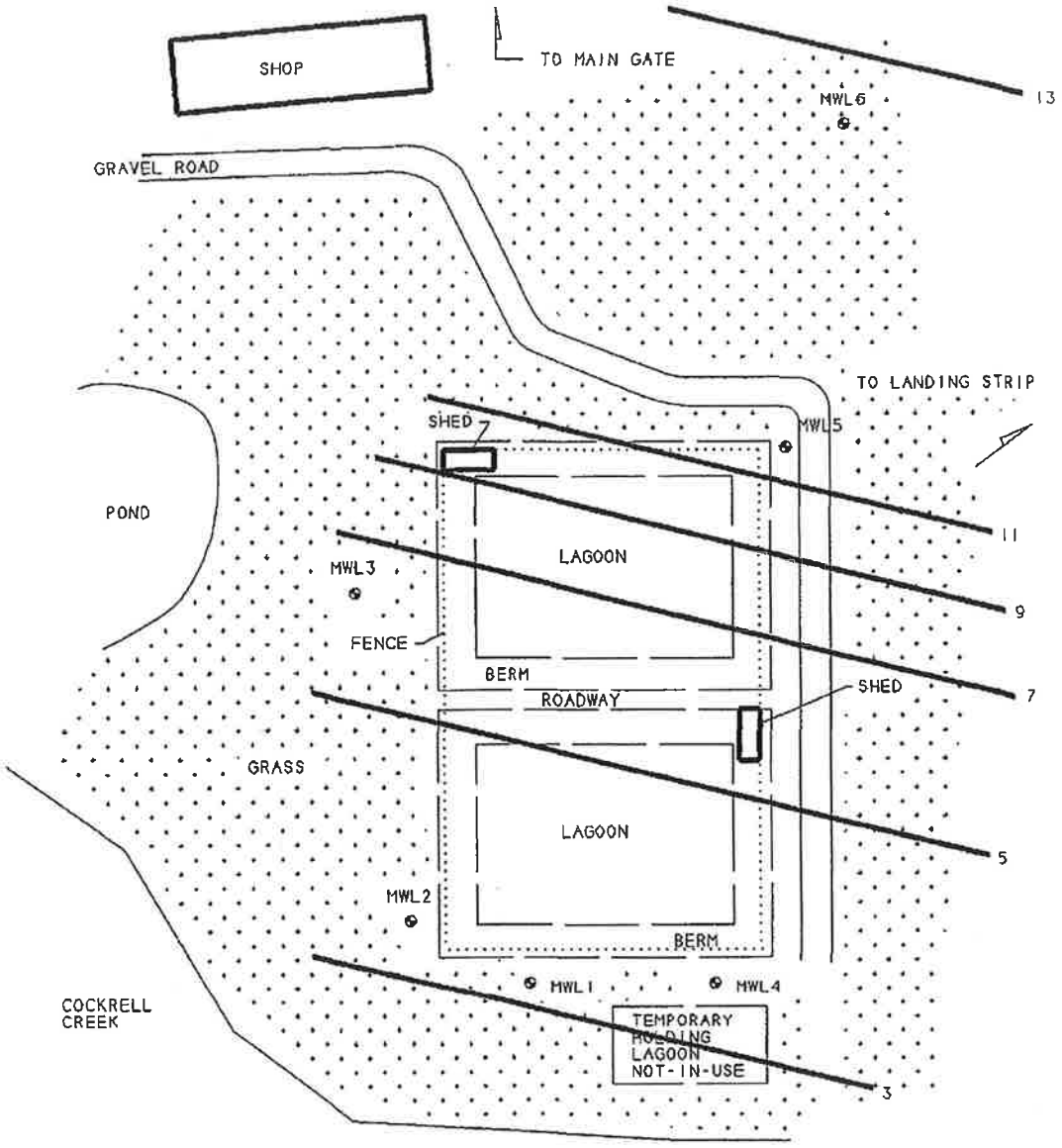
USGS 7.5 Minute Topographic Survey

Reedville, VA - 1968 - Minor Revison 1992

Swift Creek ENVIRONMENTAL, INC.

8201 County Drive, Disputanta, VA 23842-6144

Figure No.:	FIGURE 1		
Figure Name:	Site Vicinity Map		
Client:	Omega Protein	Job No.:	06-012
Site:	Reedville, Virginia	Date:	01/2009



Swift Creek Environmental, Inc.

8201 County Drive, Disputanta, VA 23842-6144

FIGURE NO: 2	
FIGURE NAME: POTENTIOMETRIC SURFACE MAP	
CLIENT: OMEGA PROTEIN	JOB NO: 06-012
SITE: REEDVILLE, VA	DATE: 03/10

AIR WATER SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 10030124

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: March 04, 2010
Date Issued: March 11, 2010

Submitted To: Tom Houghton

Project Number: 06-012

Client Site I.D.: Omega Protein

Purchase Order 06-012

Sample I.D.: SC-OP-MWL1 Laboratory Sample I.D.: 10030124-001
Date/Time Sampled: 03/04/10 10:22

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	03/04/10 15:10	WBP
Aluminum	SW6010C	1.10 mg/L	0.5000	03/11/10 14:36	MWL
Copper	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:36	MWL
Silver	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:36	MWL
Ammonia	EPA350.1/R2.0	3.41 mg/L	0.10	03/08/10 14:03	SLH
Chloride	EPA300.0/R2.1	116 mg/L	1.0	03/08/10 17:59	CL
Nitrate	Calc.	1.8 mg/L	0.1	03/04/10 12:36	LMT/JPV
Nitrate+Nitrite	SM18/4500-NO3 F	1.8 mg/L	0.1	03/05/10 14:22	JPV
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	03/04/10 12:36	LMT/JPV
Phosphorus, Total	SM18/4500-P E	0.23 mg/L	0.01	03/08/10 9:09	JPV
Total Organic Carbon (TOC)	SW9060	19.8 mg/L	1.0	03/08/10 12:43	BHW

Sample I.D.: SC-OP-MWL2 Laboratory Sample I.D.: 10030124-002
Date/Time Sampled: 03/04/10 10:00

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	03/04/10 15:10	WBP
Aluminum	SW6010C	2.73 mg/L	0.5000	03/11/10 14:38	MWL
Copper	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:38	MWL
Silver	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:38	MWL
Ammonia	EPA350.1/R2.0	8.52 mg/L	0.10	03/08/10 14:05	SLH
Chloride	EPA300.0/R2.1	158 mg/L	1.0	03/08/10 18:13	CL
Nitrate	Calc.	13.4 mg/L	0.1	03/04/10 12:36	LMT/JPV
Nitrate+Nitrite	SM18/4500-NO3 F	13.4 mg/L	0.1	03/05/10 14:25	JPV
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	03/04/10 12:36	LMT/JPV
Phosphorus, Total	SM18/4500-P E	0.02 mg/L	0.01	03/08/10 9:09	JPV
Total Organic Carbon (TOC)	SW9060	4.4 mg/L	1.0	03/08/10 12:43	BHW

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2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 10030124

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: March 04, 2010
Date Issued: March 11, 2010

Submitted To: Tom Houghton
Project Number: 06-012

Client Site I.D.: Omega Protein
Purchase Order 06-012

Sample I.D.: SC-OP-MWL3
Laboratory Sample I.D.: 10030124-003
Date/Time Sampled: 03/04/10 10:42

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	03/04/10 15:10	WBP
Aluminum	SW6010C	1.98 mg/L	0.5000	03/11/10 14:40	MWL
Copper	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:40	MWL
Silver	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:40	MWL
Ammonia	EPA350.1/R2.0	0.25 mg/L	0.10	03/08/10 14:07	SLH
Chloride	EPA300.0/R2.1	33.2 mg/L	1.0	03/08/10 18:27	CL
Nitrate	Calc.	13.0 mg/L	0.1	03/04/10 12:36	LMT/JPV
Nitrate+Nitrite	SM18/4500-NO3 F	13.0 mg/L	0.1	03/05/10 14:37	JPV
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	03/04/10 12:36	LMT/JPV
Phosphorus, Total	SM18/4500-P E	0.06 mg/L	0.01	03/08/10 9:09	JPV
Total Organic Carbon (TOC)	SW9060	1.1 mg/L	1.0	03/08/10 12:43	BHW

Sample I.D.: SC-OP-MWL4
Laboratory Sample I.D.: 10030124-004
Date/Time Sampled: 03/04/10 09:49

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	03/04/10 15:10	WBP
Aluminum	SW6010C	1.65 mg/L	0.5000	03/11/10 14:43	MWL
Copper	SW6010C	0.0120 mg/L	0.0100	03/11/10 14:43	MWL
Silver	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:43	MWL
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	03/08/10 14:10	SLH
Chloride	EPA300.0/R2.1	12.8 mg/L	1.0	03/08/10 18:41	CL
Nitrate	Calc.	1.2 mg/L	0.1	03/04/10 12:36	LMT/JPV
Nitrate+Nitrite	SM18/4500-NO3 F	1.2 mg/L	0.1	03/05/10 14:40	JPV
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	03/04/10 12:36	LMT/JPV
Phosphorus, Total	SM18/4500-P E	0.05 mg/L	0.01	03/08/10 9:09	JPV
Total Organic Carbon (TOC)	SW9060	2.6 mg/L	1.0	03/08/10 12:43	BHW

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2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 10030124

Client Name: Swift Creek Environmental, Inc.
8201 County Drive
Disputanta, VA 23842

Date Received: March 04, 2010
Date Issued: March 11, 2010

Submitted To: Tom Houghton
Client Site I.D.: Omega Protein

Project Number: 06-012
Purchase Order 06-012

Sample I.D.: SC-OP-MWL5 Laboratory Sample I.D.: 10030124-005
Date/Time Sampled: 03/04/10 09:14

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	03/04/10 15:10	WBP
Aluminum	SW6010C	4.97 mg/L	0.5000	03/11/10 14:50	MWL
Copper	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:50	MWL
Silver	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:50	MWL
Ammonia	EPA350.1/R2.0	0.60 mg/L	0.10	03/08/10 14:17	SLH
Chloride	EPA300.0/R2.1	14.8 mg/L	1.0	03/08/10 18:55	CL
Nitrate	Calc.	0.3 mg/L	0.1	03/04/10 12:36	LMT/JPV
Nitrate+Nitrite	SM18/4500-NO3 F	0.3 mg/L	0.1	03/09/10 13:18	JPV
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	03/04/10 12:36	LMT/JPV
Phosphorus, Total	SM18/4500-P E	0.12 mg/L	0.01	03/08/10 9:09	JPV
Total Organic Carbon (TOC)	SW9060	6.3 mg/L	1.0	03/08/10 12:43	BHW

Sample I.D.: SC-OP-MWL6 Laboratory Sample I.D.: 10030124-006
Date/Time Sampled: 03/04/10 08:49

Parameter	Method	Sample Results	Rep Limi	Analysis Date/Time	Analyst
E. Coli	Colilert 18/QT	< 1 mpn/100mL	1	03/04/10 15:10	WBP
Aluminum	SW6010C	5.60 mg/L	0.5000	03/11/10 14:52	MWL
Copper	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:52	MWL
Silver	SW6010C	< 0.01 mg/L	0.0100	03/11/10 14:52	MWL
Ammonia	EPA350.1/R2.0	< 0.1 mg/L	0.10	03/08/10 14:19	SLH
Chloride	EPA300.0/R2.1	6.8 mg/L	1.0	03/08/10 19:10	CL
Nitrate	Calc.	0.7 mg/L	0.1	03/04/10 12:36	LMT/JPV
Nitrate+Nitrite	SM18/4500-NO3 F	0.7 mg/L	0.1	03/09/10 13:21	JPV
Nitrite	SM18/4500-NO2 B	< 0.05 mg/L	0.05	03/04/10 12:36	LMT/JPV
Phosphorus, Total	SM18/4500-P E	0.13 mg/L	0.01	03/08/10 9:09	JPV
Total Organic Carbon (TOC)	SW9060	1.1 mg/L	1.0	03/08/10 12:43	BHW

AIR WATER & SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 10030124

Client Name:	Swift Creek Environmental, Inc. 8201 County Drive Disputanta, VA 23842	Date Received: Date Issued:	March 04, 2010 March 11, 2010
Submitted To:	Tom Houghton	Project Number:	06-012
Client Site I.D.:	Omega Protein	Purchase Order	06-012

Ted Soyars

Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a dry weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

AIR WATER SOIL LABORATORIES, INC.
2109A NORTH HAMILTON STREET
RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE 1 OF 1

CLIENT NAME: Swift Creek Environmental		PROJECT NAME: Omega Protein	
CLIENT CONTACT: B Houghton		SITE NAME:	
CLIENT ADDRESS: 8201 County Drive, Disputanta VA		PROJECT NUMBER: 06-012	
CLIENT PHONE NUMBER: 804 991 3213		P.O. NUMBER: 06-012	
CLIENT FAX NUMBER:	EMAIL: swiftcreekenv@aol.com	REGULATORY AUTHORITY: VDEQ	
Is sample for compliance reporting? (YES) NO	Is sample from a chlorinated supply? YES (NO)	PWS I.D. #:	
SAMPLER NAME (PRINT): B Houghton	SAMPLER SIGNATURE: B. Houghton	Turn Around Time: STD Day(s)	

Have ammonia and TKN samples been verified to be dechlorinated at the time of sampling?: YES NO

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	MATRIX: Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other	ANALYSIS / (PRESERVATIVE): Aluminum, Copper, Silver	Ammonia	Chloride	E. coli	Nitrate	Orthophosphorus	TOC	COMMENTS: Quote I.D.: 1 L/min
1) SC-GP-MWL1			3/4/10	10[22]	5	X			X						X	X	X	X	X	X	X	Lab
2) SC-GP-MWL2				10[15]		X			X													Preserved
3) SC-GP-MWL3				10[13]		X			X													
4) SC-GP-MWL4				9[41]		X			X													
5) SC-GP-MWL5				9[54]		X			X													
6) SC-GP-MWL6				8[51]		X			X						X	X	X	X	X	X	X	
7)																						
8)																						
9)																						
10)																						

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
B. Houghton	3/4/10 1320	[signature]	3/4/10 1320
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package: Level I ☐ Level II ☐ Level III ☐ Level IV ☐

LAB USE ONLY COOLER TEMP _____ °C

SCE
Omega Protein
10030124
DUE: 5 Days
Recd: 03/04/10

AIR WATER & SOIL LABORATORIES, INC.
2109A North Hamilton Street • Richmond, Virginia 23230 • Tel: (804) 358-8295 Fax: (804) 358-8297

SCE **10030124**
Omega Protein
DUE: 5 Days
Recd: 03/04/10

Sample Conditions Checklist

Opened by: (print) GW
(sign)
Lab ID No.:
Date Cooler Opened: 3/4/10

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☐ Walk In ☑			
2.	Were custody seals used?	☐	☐	☑
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
6.	Are the samples received on ice?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (4 degrees Celsius +/-2)	☑	☐	☐
8.	Are all samples within holding time for requested tests?	☑	☐	☐
9	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
10	Are all samples in proper containers for the analyses requested?	☑	☐	☐
11	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
12	Are all volatile organic containers free of headspace?	☐	☐	☑

COMMENTS

AIR WATER SOIL LABORATORIES, INC.

pH Preservation Log

Order ID 10030124

Date Performed: 3/4/10

Analyst Performing Check: GW

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO								
		pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)	pH as Received		Final pH (If adjust.)
		<2	Other		>12	Other		>9	Other		<2	Other		<2	Other		<2	Other		<2	Other		<2	Other			Other			Other	
001	02	✓																													
	06										✓																				
↓	07																✓			✓											
002	02	✓																													
	06										✓																				
	07																✓			✓											
003	02	✓																													
	06										✓																				
	07																✓			✓											
004	02	✓																													
	06										✓																				
	07																✓			2 ✓											
005	02	✓																													
	06										✓																				
	07																✓			✓											

AIR WATER SOIL LABORATORIES, INC.

pH Preservation Log

Order ID

Date Performed: 3/4/10

Analyst Performing Check: JW

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO								
		pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)	pH as Received		Final pH (if adjust.)
		<2	Other		>12	Other		>9	Other		<2	Other		<2	Other		<2	Other		<2	Other		<2	Other			Other			Other	
004	02	✓																												
	06										✓																				
	07																✓			✓											

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Certificate of Analysis

Final Report

Laboratory Order ID 10030507

Client Name:	Omega Protein P.O. Box 175 610 Menhaden Road Reedville,Virginia 22539	Date Received: Date Issued:	March 23, 2010 April 22, 2010
Submitted To:	Ted Schultz	Project Number	NA
Client Site I.D.	Omega Protein	Purchase Order	3371

Sample Summary List

Laboratory Sample ID	Sample ID	Sample Date	Receive Date
10030507-001	20Mar10-VM-A1	03/20/2010	03/23/2010
10030507-002	20Mar10-VM-A2	03/20/2010	03/23/2010
10030507-003	20Mar10-VM-B	03/20/2010	03/23/2010
10030507-004	20Mar10-VM-C	03/20/2010	03/23/2010

for: Carmela L. Simmons
Ted Soyars
Laboratory Manager

End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a dry weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

042220101426

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Certificate of Analysis

Final Report

Laboratory Order ID 10030507

Client Name: Omega Protein
P.O. Box 175
610 Menhaden Road
Reedville,Virginia 22539

Date Received: March 23, 2010
Date Issued: April 22, 2010

Submitted To: Ted Schultz
Project Number NA

Client Site I.D. Omega Protein
Purchase Order 3371

Analytical Results

Sample I.D.: 20Mar10-VM-A1
Laboratory Sample I.D.: 10030507-001
Date/Time Sampled: 03/20/10 17:45

Parameter	Method	Sample Results	Qual	Rep Limit	Analysis Date/Time	Analyst
TPH-Volatiles (GRO)	SW8015C	< 0.5 mg/L		0.5	03/26/10 13:26	AJR

Analytical Results

Sample I.D.: 20Mar10-VM-A2
Laboratory Sample I.D.: 10030507-002
Date/Time Sampled: 03/20/10 17:45

Parameter	Method	Sample Results	Qual	Rep Limit	Analysis Date/Time	Analyst
TPH-Semi-Volatiles (DRO)	SW8015C	< 0.5 mg/L		0.5	03/29/10 14:13	JHV

Analytical Results

Sample I.D.: 20Mar10-VM-B
Laboratory Sample I.D.: 10030507-003
Date/Time Sampled: 03/20/10 17:45

Parameter	Method	Sample Results	Qual	Rep Limit	Analysis Date/Time	Analyst
Copper, Dissolved	EPA200.7/R4.4	< 0.01 mg/L		0.01	03/29/10 16:51	MWL
Lead, Dissolved	EPA200.7/R4.4	< 0.01 mg/L		0.01	03/29/10 16:51	MWL
Zinc, Dissolved	EPA200.7/R4.4	< 10 ug/L		10	03/29/10 16:51	MWL

Analytical Results

Sample I.D.: 20Mar10-VM-C
Laboratory Sample I.D.: 10030507-004
Date/Time Sampled: 03/20/10 17:45

Parameter	Method	Sample Results	Qual	Rep Limit	Analysis Date/Time	Analyst
Tributyltin	85-3295	See Attached		--		

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Certificate of Analysis

Final Report

Laboratory Order ID 10030507

Client Name:	Omega Protein P.O. Box 175 610 Menhaden Road Reedville,Virginia 22539	Date Received: Date Issued:	March 23, 2010 April 22, 2010
Submitted To:	Ted Schultz	Project Number	NA
Client Site I.D.	Omega Protein	Purchase Order	3371

Summary of Analytical QC Batches

QC Batch ID	Method	Sample List
QC100329015	SW8015C	10030507-001
QC100329024	SW8015C	10030507-002
QC100330008	EPA200.7/R4.4	10030507-003

CHAIN OF CUSTODY RECORD

Client:	Omega Protein, Inc.
Contact:	Ted Schultz
Address:	P.O. Box 175 Reedville, VA 22539
Phone:	(804) 453-4211
Fax:	(804) 453-4123
eMail:	tschultz@omegaproteininc.com

Lab: F&R
AWS
Other _____

Project Name: Omega Protein

Sampled By: Ted Schultz

							Requested Test Parameters										
							TDZ	TRS	TRC	Salinity	NH3	TPH	Dis Cu	Dis Zn	Dis Pb	TBT	TPH
Lab ID	Date Sampled	Time Sampled	Grab	Comp	Sample Identification	# of Contalners											
	3/20/10	17:45	X		20Mar10-VM-A1	2						GRO					
	3/20/10	17:45	X		20Mar10-VM-A2	1											DRO
	3/20/10	17:45	X		20Mar10-VM-B	1							X	X	X		
	3/20/10	17:45	X		20Mar10-VM-C	1										X	

Relinquished By	Date	Time	Received By	Date	Time
[signature]	3/23/10	12:35	[signature]	3/23/10	1235
Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time

Comments:

Dissolved metals samples field filtered, pH <2 w/ HNO3 4 deg C
Other samples collected in provided containers 4 deg C

6.0°C
onice

VPDES Samples

PO 3371

OP
Omega Protein

10030507
DUE: 5 Days
Recd: 03/23/10

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10030507

OP
Omega Protein

10030507
DUE: 5 Days
Recd: 03/23/10

Sample Conditions Checkli

Opened by: (print) AKM

(sign) AK

Lab ID No.:

Date Cooler Opened: 3-23-10

		YES	NO	N/A
1.	How were samples received? Fed Ex ☐ UPS ☐ Courier ☐ Walk In ☑			
2.	Were custody seals used?	☐	☐	☑
3.	If yes, are custody seals unbroken and intact at the date and time of arrival?	☐	☐	☑
4.	Are the custody papers filled out completely and correctly?	☑	☐	☐
5.	Do all bottle labels agree with custody papers?	☑	☐	☐
6.	Are the samples received on ice?	☑	☐	☐
7.	Is the temperature blank or representative sample within acceptable limits? (4 degrees Celsius +/-2)	☑	☐	☐
8.	Are all samples within holding time for requested tests?	☑	☐	☐
9	Is a sufficient amount of sample provided to perform the tests indicated?	☑	☐	☐
10	Are all samples in proper containers for the analyses requested?	☑	☐	☐
11	Are all samples appropriately preserved for the analyses requested?	☑	☐	☐
12	Are all volatile organic containers free of headspace?	☑	☐	☐

COMMENTS

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666
1-800-695-2162
(757) 865-0880
Fax: (757) 865-8014
E-mail: info@universallaboratories.net

Date: Wednesday, April 21, 2010

Pages: Page 1 of 2

To: Jessica Comstock
Air Water & Soil Laboratories

Fax#: (804) 358-8297

From: Mike Jennings

Subject: Results for Project N/A
designated as UL Order Id 1003545 and received on Wednesday, March 24, 2010

Virginia Drinking Water Lab# 00030
VDEQ Lab #000003
North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543
EPA LAB CODE VA00912
1003545-001

TELEPHONE: (757) 865-0880
TOLL-FREE: (800) 898-2162
FAX: (757) 865-8014

UNIVERSAL LABORATORIES

20 Research Drive Hampton, Va 23666

REPORT OF ANALYSIS

Order ID: 1003545

(REPORT DATE)
21-Apr-10

TO: **Air Water & Soil Laboratories**
2109 A North Hamilton Street
Richmond VA 23230
ATTN: Jessica Comstock

Project ID: N/A
Project # N/A
Site: Client Log #100830507-004
Matrix: Wastewater

UL Sample Number: **1003545-001**
Sample ID: Client Log #100830507-004
Grab Date/Time: 3/20/2010 17:45
Composite Start: N/A
Composite Stop: N/A
Collected By: CLIENT

Comments for Order:

Parameter	Method	Test Result	Units	UL Report Limit	Analysis Date/Time	Analyst
TBT Tributyltin	GC/FPD	<L LCS/Dup outside acceptable limits.	ng/l	30	4/14/2010 4:46:00 PM	BD

Comments for Sample ID 1003545-001
No comments

Respectfully Submitted,

Virginia Drinking Water Lab# 00030
VDEQ Lab #000003

North Carolina Drinking Water Lab # 51706
North Carolina Wastewater/Groundwater Lab # 543

EPA LAB CODE VA00912

1003545-001

1003454

Universal

AIR WATER & SOIL LABORATORIES, INC.

2109A NORTH HAMILTON STREET
RICHMOND, VIRGINIA 23230
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

PAGE 1 OF 1

CLIENT NAME: AWS			PROJECT NAME:
CLIENT CONTACT: Jessica Comstock			SITE NAME:
CLIENT ADDRESS:			PROJECT NUMBER: 100305.07
CLIENT PHONE NUMBER:			P.O. NUMBER:
CLIENT FAX NUMBER:	EMAIL:		REGULATORY AUTHORITY:
Is sample for compliance reporting? YES NO	Is sample from a chlorinated supply? YES NO		PWS I.D. #:
SAMPLER NAME (PRINT):	SAMPLER SIGNATURE:		Turn Around Time: Due 3-30-10 Day(s)

Have ammonia and TKN samples been verified to be dechlorinated at the time of sampling?: YES NO

CLIENT SAMPLE I.D.	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Number of Containers	Grab	Composite	Field Filtered (Dissolved Metals)	MATRIX: Ground Water / Surface Water	Waste Water / Storm Water	Drinking Water	Soil	Solids	Other	ANALYSIS / (PRESERVATIVE): Trihalomethanes							COMMENTS
1) 100305.07-004			3-20-10	17:45	1					✓					✓							Quote I.D.:
2)																						PLEASE NOTE PRESERVATIVE(S) or PUMP RATE (L/min)
3)																						
4)																						
5)																						
6)																						
7)																						
8)																						
9)																						
10)																						

	DATE / TIME		DATE / TIME	QC Data Package	LAB USE ONLY	COOLER TEMP _____ °C
RELINQUISHED: A McJenney	3-23-10 17:00	RECEIVED: UPS	3-23-10	Level I ☐		
RELINQUISHED: UPS	3-24-10	RECEIVED:	3/24/10 12:30	Level II ☐		
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME	Level III ☐		
				Level IV ☐		

AWS COC_v080819.xls

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/1/10 To 4/4/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Allen E Murrell 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/5/10 To 4/11/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/12/10 To 4/18/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Willie E. Durrell 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/19/10 To 4/25/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Theodore Schultz 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/26/10 To 4/30/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE *
	✓	

*Comments on Noncompliance

Theodore A Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/1/10 To 4/4/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/5/10 To 4/11/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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Theodore Schultz 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/12/10 To 4/18/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Willie E. Durrell 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/19/10 To 4/25/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 4/26/10 To 4/30/10

Paint Area	COMPLIANCE / (check as appropriate)	NONCOMPLIANCE *
____	✓	____
____	____	____
____	____	____
____	____	____
____	____	____
____	____	____

*Comments on Noncompliance

Theodore A Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 5/4/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 3/1/10 To 3/7/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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[signature] 4/7/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 3/8/10 To 3/14/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE *
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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[signature] 4/7/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 3/15/10 To 3/21/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

[signature] 4/7/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 3/22/10 To 3/28/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE *
	✓	

*Comments on Noncompliance

Theodore Scholtz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Signature of Principal Officer or Authorized Agent / Date 4/7/2010

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 3/29/10 To 3/31/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years).

William E Purcell 4/7/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 2/1/10 To 2/7/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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William E. Purcell TE/ 03/03/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 2/8/10 To 2/14/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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W. Theodore Schultz 3/3/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 2/15/10 To 2/21/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodor Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

Willie E Russell 3/3/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 2/22/10 To 2/22/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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Willie E Purnell 3/3/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/1/10 To 12/6/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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[signature] 02/02/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/1/10 To 1/17/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE * (check as appropriate)
_____	✓	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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William E. Purnell 02/02/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/18/10 To 1/24/10

Paint Area	COMPLIANCE / NONCOMPLIANCE * (check as appropriate)	
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

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Will E Rudd 02/02/2010
Signature of Principal Officer or Authorized Agent / Date

ATTACHMENT C
DEPARTMENT OF ENVIRONMENTAL QUALITY
BMP Compliance Report

Facility Name: Omega Protein
Address: Reedville, VA.

VPDES Permit No.: VA0003867

Report Period: From 1/25/10 To 1/31/10

Paint Area	COMPLIANCE (check as appropriate)	NONCOMPLIANCE *
	✓	

*Comments on Noncompliance

Theodore Schultz / Technical Supervisor
Name of Principal Exec. Officer or Authorized Agent / Title

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. paragraph 1001 and 33 U.S.C. paragraph 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and 5 years).

William E. Purcell 02/02/2010
Signature of Principal Officer or Authorized Agent / Date

OMEGA PROTEIN INC.

Inter-Office Correspondence

TO: CAPTAINS FROM: TOM BLENCOWE

CC: DATE: 10/11/01

SUBJECT: REFRIGERATION WATER

STARTING MONDAY 10/15/01 EACH TIME YOU PUMP-OFF REFRIGERATION WATER FOR UNLOADING YOU MUST LOG IT IN ON THE ATTACHED LOG AND TURN IN YOUR WEEKS LOG WITH YOUR PAPERS ON FRIDAY. USE THE COLUMNS STARTING WITH "DISCHARGE LOCATION" AND ENDING WITH "HEADING." THE OTHER COLUMNS ARE FOR BAILING WATER ONLY. PLEASE PUT THE VESSEL NAME ON THE TOP OF THE LOG.

WE JUST HAD A REVIEW OF OUR PERMIT AND THIS IS A REQUIREMENT. THE ITEMS THAT APPLY TO US ARE MARKED IN YOUR INFORMATION.

THERE ARE ENOUGH PAGES FOR THE REST OF THIS YEAR AND NEXT YEAR. PLEASE PUT THE LOG BACK IN YOUR BOX AT THE END OF THE SEASON SO THAT I WILL KNOW YOU HAVE IT FOR 2002.

USE ONE PAGE FOR EACH WEEK. TEAR OFF FROM THE BOTTOM. ANY QUESTIONS PLEASE SEE ME OR LYELL JETT. THANKS.